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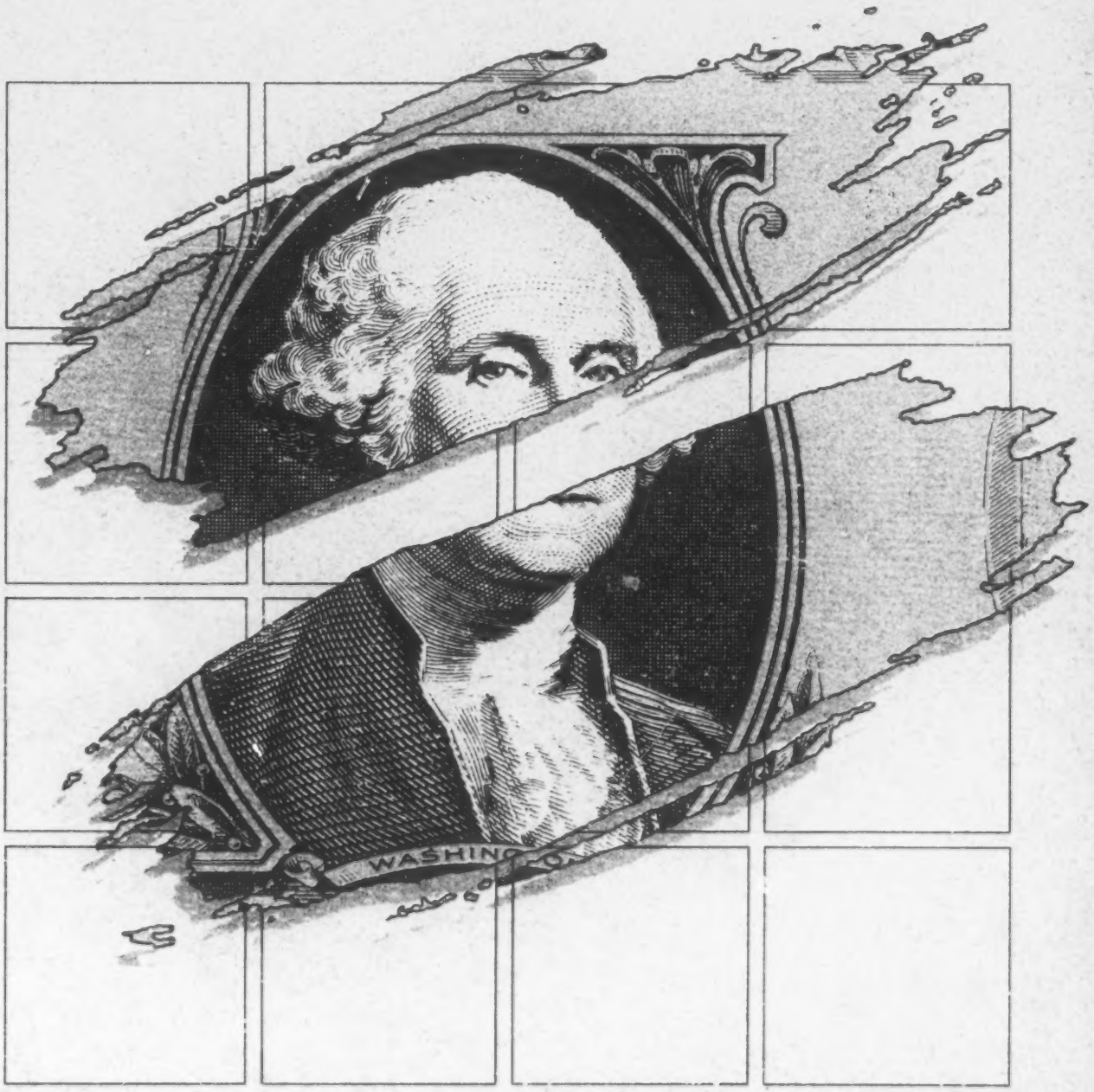
The Nation
1987 IV–1989 III
Economic Forecasting Center

Georgia State University, College of Business Administration, November 1987
Dr. Donald Ratajczak, Director



ECONOMIC FORECASTING CENTER

Dr. Donald Ratajczak, Director

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CONSUMER AND INVESTOR HESITANCY RAISES RECESSIONARY RISK

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Summary

Following the stock market peak in late August, more than a trillion dollars in the market value of household wealth has vanished. As a result, the ratio of assets to outlays held by the household sector has fallen from an unusually high 4.5 to a more normal 4.1. That unusually high asset ratio has been a primary cause of unusually strong consumer spending during the past few years. Consumers were able to lower their savings to 3% because appreciating assets were sufficient to meet future needs without diversion from current income. This no longer is true and the savings rate now will rise toward more normal levels.

Unfortunately, initial attempts to raise savings will not be effective, as reduced consumption will lead to lower economic activity, reduced employment and reduced incomes. The rebound in household savings may not be apparent until the next economic expansion. In the meantime, however, investor activity also will diminish. While productivity-enhancing expenditures will be largely unaffected by the stock market crash, decisions to expand will be postponed. Also, until uncertainty diminishes, housing buyers will also delay their purchases. These factors will combine to cause a modest economic decline late in 1988 and early in 1989. In 1988, economic activity should expand 1.7% but will slow to only a 1.1% gain in 1989 despite clear signs of significant recovery in the second half of that year.

If the stock market had not crashed, economic activity would have rebounded to a 3.5%-4% growth path, causing an extremely tight labor market early in 1988. Higher wage pressures would then generate increased inflationary problems while interest rates would be rising. By the beginning of 1989, increased inflationary pressures would necessitate tightened Federal Reserve activity to forestall seriously rising inflationary pressures. Thus, a recession would have materialized anyway, but with higher inflation and higher interest rates than now appear likely. Indeed, inflation as measured by the consumer price index is expected to increase only 4.2% in 1988 and remain below 5% in 1989. Interest rates also should be trending down from current levels, with long-term government bond yields averaging less than 9% in 1988 before declining further to only 8% in 1989.

Thus, while the stock market crash has truly been traumatic, it is causing a shift in consumer and investor sentiment that will lead to lower interest rates and lower inflation during the next two years than otherwise would have prevailed.

Outlook

The stock market crash that occurred so dramatically on October 19 raises two obvious questions: Why did it happen? And what does it mean for the economy?

The crash did not occur because of a change in policy or a change in the perception of the significance of policy or of economic behavior. Those would be factors that could justify an abrupt market adjustment according to the theory of rational expectations. Rather, our analysis indicates that the market crashed because the gap between market values and fundamental values had become very large and was continuing to widen. According to some theories of stock market behavior based upon the mathematical principles developed in catastrophe theory, when the gap between market and fundamental values reaches a critical level, an abrupt change in direction will occur.

In the middle of October, a merchandise trade report indicated that America's trade deficits would remain unusually high for a surprisingly long period of time. This news eroded the value of the dollar. Bond investors sensed that dollar weakness would lead to rising inflationary pressures. In addition, foreign investors sensed even greater currency risk. The result was a traumatic decline in bond prices during the week preceding the crash.

Higher interest rates reduced the value of any projected earnings stream underlying equity values. Thus, fundamental values began falling sharply, increasing the gap between market and fundamental values. The stock market had to return to more realistic evaluations following a year when merger and acquisition speculation and the presence of foreign investors with different criteria for evaluating equity holdings caused the stock market to rally despite weakness in the bond market. Our current model shows a justified evaluation of less than 1700 on the Dow Jones index, although the current bond market rally is beginning to raise fundamental stock values. If this reasoning is correct, a modest improvement in stock values may be anticipated from current levels next year. However, a return to the 2722 Dow Jones index must await another decade.

What the stock market's collapse means to the economy must be split into two considerations. First, the stock market is an excellent indicator of future economic conditions and may have uncovered some economic weakness. Second, changes in stock market values have significant influence upon consumer sentiment, investment decisions, and the wealth holdings of households. Thus, changes in stock values have an influence upon economic conditions.

There is little evidence that the stock market discovered some economic weakness that previously had not been apparent. In fact, the economy was strengthening as the crash began. While the trade deficit appears to have been the factor that pushed interest rates up that last little bit to cause a stock market tumble, interest rates were on the rise this year because an improving economy was colliding with government deficit financing and reduced household savings. If the economy had remained sluggish, interest rate pressures never would have been as substantial as they actually were.

The economic indicators suggest that the economy was moving toward a 3.5%-4.0% growth path when the stock market crash developed. During the third quarter, economic activity expanded 3.8% without any support from improving trade balances and with moderation in inventory investments. The employment

report for October showed that activity was intensifying further in the week prior to the stock market collapse. Thus, a relatively vigorous rate of economic growth would have occurred in the absence of the stock market adjustment.

On the other hand, such a rapid rate of economic growth was leading to higher interest rates and increasing inflationary pressures. The insured unemployment rate currently is at 2.1%, a lower level than in several cyclical peaks in the past. Increased hourly wages almost certainly would intensify and higher inflationary pressures were around the corner. Indeed, higher inflation in 1988 probably would have inspired Federal Reserve containment by the end of that year. Such abrupt shift in Federal Reserve activity almost certainly would have induced at least a mild recession in 1989. However, the stock market almost certainly was not looking that far ahead when it decided to decline.

Even if the stock market did not discover any weakness, its ability to wipe out $1 trillion in the market value of household wealth almost certainly will have a slowing effect upon economic activity. The desired savings rate, which may have been as low as 3%, almost certainly will increase by several percentage points. Assuming that the asset-outlay ratio is moving toward normal, the savings rate probably also would be moving toward the 6% normal post-war rate. This shift in desired savings alone will remove nearly 2 percentage points from economic growth next year.

Much of the economic impact will fall upon consumer durables, where purchases can be postponed. Automobile sales are expected to fall to 9.8 million next year and to continue declining into 1989. Weakness also is expected in furniture and carpeting. Eating out also is expected to be impacted slightly. However, as the reduction in consumer spending leads to reduced economic activity and a falloff in employment opportunities, incomes will decline. Thus, actual savings will not rise to the desired level, at least not until the economy recovers from this consumer-induced slowdown.

One theory of investment behavior would lead to a very sharp reduction in investment activity as a result of reduced stock market values. In the long run, it appears that investment decisions are based upon the discrepancy between the market value and the acquisition costs of capital. Indeed, significant increases in the market value of equity capital should encourage further use of capital by those favored industries. In fact, however, much of the increase in equity value has been the result of mergers and acquisitions and the reduction in equity holdings by companies fearing potential takeovers. Instead of encouraging more use of capital, rising stock market prices have partially been the result of reduced equity capital. For that reason, a discrepancy between the market and acquisition costs of capital are not expected to be as dominant in changing investment behavior as at other times.

Nevertheless, investment for expansion purposes almost certainly will be delayed until capital appropriations committees are certain that the economic fallout from the stock market decline is not significant. Investment for productivity-enhancing purposes will continue. The net effect of this is to slow what otherwise would have been a significant rebound in capital spending during 1988. Then, the slowing of economic activity generated by reduced consumer spending will cause a slight downturn in capital spending during 1989.

Of course, other forces also are at work in altering investment behavior. Tax changes continue to reduce the desirability of investing in multi-family

units. Only after rising rental rates will offset the lost tax advantages that previously were available to such investors will apartment construction return to a more normal relationship to single-family housing. In the interim, residential investment activity will remain depressed. In addition, office buildings are expected to slow significantly until their rents rise significantly. Given the unusually high level of office vacancies, nearly 21% for the nation, the ability to raise rents remains a few years away. On the other hand, the prolonged slump in oil and gas exploration that has helped to depress nonresidential structures will begin to reverse direction. Although oil prices are not expected to rebound sharply in 1988, they are projected to exceed $22 in 1989. At that point, increased exploration once again becomes profitable.

As the stock market crash occurred worldwide, it may slow the growth of export sales from the United States. Fortunately, the dollar's decline will continue to displace imports. The vast majority of reduced investment spending will be from imported capital goods. Thus, the total economic impact will not be as large as might have occurred in an unchanged or increasing dollar environment.

Of course, slower economic activity will adversely impact government budgets. State and local budgets, which depend substantially upon consumer-based taxes, will be especially hard hit. Relatively large operating deficits will be forced upon states before the end of 1988, causing significant spending adjustments. Deficits also will be rising at the federal level, although projected efforts to restrain the growth of the deficit are expected to be marginally successful. As a result, deficits in excess of $200 billion are not envisioned. Indeed, after a $20 billion increase in the deficit for 1988, a slight decline in budget deficits appears likely during 1989.

The slowdown currently foreseen is not sufficient to totally reverse developing inflationary pressures. Rather, it will delay the increase in wage pressures that otherwise would have developed. Wage compensation, which had slowed to only a 3% gain in 1987 will still rise by more than 4% in 1988 and nearly 5% in 1989. However, without the economic slowing, wages probably would have been increasing more than 5% before the end of 1988. As a result, inflation remains below 5% in 1989 despite more than a 13% increase in the price of imported oil. Indeed, excluding oil, inflation should remain within the 4% band that has persisted since the early 1980s.

Such a moderation in inflationary pressures coupled with a significant reduction in desired consumption and investment activity will lead to much more modest interest rate changes than otherwise would have prevailed. Interest rates have fallen sharply in recent weeks, but much of this is the result of investors running from stocks and into more secure government positions. Indeed, many of the corporate issues have not shown a commensurate improvement in yield. When the first shocks of the stock market debacle have worn off, some of these investments will return to stocks and corporate bonds. The result will be a firming of the stock market and some upward pressures upon interest rates. However, as these changed savings and investment relationships evolve, interest rates will again move downward. The prime rate is now projected to decline to 8.25% by the end of 1988 and to an even lower 7% sometime in 1989. Under these conditions, the long-term government bond will be yielding 8.5% by the end of 1988 and slightly less than 8% by the end of 1989.

If these projections are correct, those investors who quickly moved to bonds and out of stocks made the appropriate changes for their investment needs. For example, our projections still see no significant returns from a stock portfolio over the next twelve months. By 1989, however, equity positions once again would be rewarded. However, bond positions not only are providing yields near 9% for highest grade paper, but also provide the opportunity for 8%-10% capital gains. While bond opportunities are not as substantial as after 1982, they probably offer the highest total rate of return over the next two years.

Finally, the stock market crash is not as economically traumatic an event as it was a problem for investors. Unlike the 1929 era, few financial institutions were weakened by the stock market shock. Some brokerage firms were damaged, but most banks had no problems with any stock market collateral because of relatively high margin requirements. Moreover, most banks hold significant portfolios of bonds, which actually increased in value in the past few weeks. This, coupled with the willingness of the Federal Reserve to provide substantial liquidity, has actually strengthened the financial health of many banking institutions.

In a longer perspective, if the stock market crash increases household savings and accelerates the slowing of unwanted construction inventory, it will cause the American economy to move closer to an appropriate balance between domestic savings and investment. Although trade deficits and the near-term lack of potential for earning significant returns on capital probably will discourage foreign investors from holding dollars, this savings and investment adjustment in the United States should begin developing the foundations for a gradually firming dollar in 1989.

Also, a recession before the end of 1989 probably was going to develop anyway. Without the stock market crash, economic activity would have continued to expand on a relatively robust 3.5%-4% expansion path. Soon, bottlenecks would begin developing in some industrial materials and in the labor markets. Accelerating inflationary pressures would drive up interest rates and eventually cause the Federal Reserve to react to a gradually overheating economy. Thus, a recession probably could not have been forestalled before the end of this decade. Therefore, a modest recession that actually redresses some of our savings and investment imbalances and prevents inflationary pressures from becoming too intense may be viewed as the better of two undesirable worlds. In that regard, the stock market crash certainly has a silver lining.

Assumptions

Most of the government assumptions are contained in tables 5 and 6. The Federal Reserve is expected to provide ample liquidity only until stability reappears in the financial markets. Otherwise, substantial inflationary risk would be the result of such persistence in policy. Although declining short-term interest rates will once again cause a dramatic increase in checkable deposits, the Federal Reserve is expected to ignore growth in M1 and look more closely at the expansion of available reserves and growth in the monetary base.

Some restraint upon deficit financing is anticipated as a result of the conference between the Congress and the President. We have added about $10 billion to excise-related taxes and have marginally increased the effective corporate tax to account for possible revenue-raising portions of the

compromise. Growth in defense spending has been slowed substantially, especially for defense durables. Some reduced support for agricultural programs also has been built into the purchases of nondefense nondurables and the projected deficits of government enterprises. In addition, grants-in-aid to state and local governments have been slowed marginally. Foreign aid also has been reduced. The net result of these changes is to take approximately $30 billion per year from deficits that otherwise would have been generated. Because of the economic slowing, this is not enough to prevent the 1988 deficit from rising by $20 billion. However, as the economy begins recovering in 1989, deficits once again recede.

Some other assumptions used in this forecast include the following:

a. Wage increases were assumed for federal employees on the order of 3.5% gains in January 1988 and 4% in January 1989. A special 2% increase was projected for military compensation at the beginning of the fourth quarter of 1988.

b. Cost-of-living adjustments were assumed to be levied for government pensions, social security, and aid to families with dependent children. Of course, these areas are currently being negotiated in an attempt to control deficits in the next two years. The cost-of-living adjustment is 4.2% in January 1988 and 4.1% in January 1989.

c. Oil imports are expected to rise slightly more than 3% per year over the next two years as production in the United States continues to decline. Oil prices are expected to remain below $20 per barrel through 1988 before rising to slightly more than $22 per barrel by the end of 1989. Obviously, no Persian Gulf disruptions are assumed in this forecast.

d. No significant trade restraint legislation was expected to be enacted.

e. Social security taxes are expected to rise to 7.51% in 1988. The wage base was assumed to be $45,200 in 1988 and $46,800 in 1989. The Senate's proposal for extending the effective wage base for medicare contributions was not expected to be enacted.

f. World trade is expected to grow 3% in 1988 and 4% in 1989.

g. No significant strike activity was anticipated in the forecast.

Conclusion

The stock market crash will have a profound effect upon consumer and investor behavior over the next two years. As a result, economic activity will slow significantly in 1988, possibly creating an extremely mild recession toward the end of the year. A modest recovery is anticipated in the second half of 1989.

Despite the outlook for potential recession, however, the shift in savings and investors' behavior that is anticipated as a result of the stock market decline will lead to a healthier economic climate than would have prevailed otherwise. Interest rates are expected to trend downward slightly while inflation is expected to remain below 5%. If this adjustment in consumer activity had not materialized, inflation probably would have intensified to more than 6% early in 1989 and interest rates almost certainly would have been heading above 11% on long-term government bonds. In short, the stock market crash has removed some equity value excesses that were distorting other economic behavior. In that light, there is a definite silver lining from the stock market crash.

The economic system appears to be indicating that the renewed expansion of economic activity that was caused by the dollar's decline could not be easily accommodated as long as household savings were so low and government borrowings were so high. The economic system has adjusted to this imbalance by removing the asset base that was encouraging unusually high consumer activity. Hopefully, higher savings activity will now prevail in the household sector. If only higher savings activity also can be exerted in the government sector, the economic system will not be as unkind the next time more than 3% growth in economic activity is generated for any length of time. Assuming that some longer-term deficit reduction programs will be put in place and assuming that more moderate consumer spending patterns will prevail in the next economic expansion, the stock market crash of 1987 soon will fade into an historical footnote rather than an epoch-making event.

Table 1.

Georgia State University
College of Business Administration
Economic Forecasting Center
November 1987

U.S. Expenditures for 1987-II and 1987-III with Forecasts for 1987-IV through 1989-III

		1987			1988				1989			Percent Change			Annual		
		II	III	IV	I	II	III	IV	I	II	III	86-87	87-88	88-89	1987	1988	1989
1.	Personal Consumption Expenditures	2943.7	3003.7	3024.4	3068.9	3112.8	3158.5	3195.4	3240.8	3296.0	3354.7	5.9	5.6	6.0	2966.4	3133.9	3321.3
2.	Autos and Parts	189.6	210.6	191.3	199.4	202.8	207.6	199.5	197.9	202.0	208.8	-1.4	5.2	0.0	192.3	202.3	202.3
3.	Other Durable Goods	219.4	222.0	223.1	222.8	222.1	221.7	223.0	223.0	224.4	225.7	6.4	0.7	1.2	220.8	222.4	225.0
4.	Nondurable Goods	982.1	988.1	997.0	1004.6	1016.2	1027.8	1040.1	1054.2	1068.7	1083.8	4.8	3.9	5.3	984.3	1022.2	1075.9
5.	Services	1552.6	1583.0	1613.0	1642.1	1671.7	1701.4	1732.8	1765.7	1800.9	1836.4	7.6	7.5	7.8	1569.1	1687.0	1818.3
6.	Gross Private Domestic Investment	702.6	696.5	718.1	709.4	708.0	704.2	692.5	672.4	683.5	708.2	5.0	-0.1	-1.9	704.3	703.5	690.1
7.	Residential Struct.	227.7	228.3	228.0	219.8	213.4	218.2	226.9	232.5	241.0	249.1	4.1	-3.4	11.8	227.4	219.6	245.4
8.	Other Structures	129.7	133.5	132.0	129.7	129.1	128.8	129.4	130.6	131.8	133.7	-4.7	-1.3	2.6	131.0	129.3	132.6
9.	Producers' Durables	304.9	319.3	324.2	317.4	320.7	320.5	322.7	314.5	318.0	321.3	3.7	3.1	-0.3	310.6	320.3	319.3
10.	Change in Inventories	40.3	15.5	33.9	42.5	44.8	36.7	13.5	-5.2	-7.3	4.1	---	---	---	35.3	34.4	-1.7
11.	Net Export of Goods and Services	-118.4	-121.7	-115.9	-115.3	-109.4	-98.7	-98.0	-95.0	-88.3	-79.8	---	---	---	-117.1	-105.4	-85.6
12.	Exports	416.5	433.4	439.0	446.0	456.0	473.8	479.0	485.2	492.8	508.3	12.1	10.0	7.8	421.6	463.7	500.0
13.	Imports	534.8	555.1	554.9	561.3	565.4	572.1	577.0	580.2	581.1	588.1	11.8	5.6	2.9	538.6	569.0	585.6
14.	Government Purchases of Goods and Services	917.1	933.5	951.6	966.3	977.0	990.3	1006.2	1022.6	1032.2	1047.6	6.3	6.5	5.8	924.6	985.0	1041.7
15.	Federal	379.6	384.6	393.5	399.3	400.0	404.0	411.2	417.4	418.7	423.7	4.1	5.9	4.7	381.2	403.6	422.8
16.	National Defense	294.5	296.0	298.9	305.0	309.0	311.6	314.7	320.9	324.7	328.1	5.9	5.4	5.2	294.2	310.1	326.3
17.	Other	85.1	88.6	94.6	94.3	91.0	92.4	96.5	96.5	94.0	95.6	-1.6	7.6	3.1	86.9	93.6	96.5
18.	State and Local	537.6	548.9	558.1	567.0	577.0	586.3	595.0	605.2	613.5	623.9	7.9	7.0	6.5	543.5	581.3	618.9
19.	Gross National Product	4445.1	4512.0	4578.2	4629.3	4688.4	4754.3	4796.1	4840.8	4923.4	5030.7	5.7	5.3	5.3	4478.3	4717.0	4967.5
20.	Amount of Change	67.4	66.9	66.2	51.1	59.1	65.9	41.8	44.7	82.6	107.3	---	---	---	243.3	238.8	250.4
21.	% Change*	6.3	6.2	6.0	4.5	5.2	5.7	3.6	3.8	7.0	9.0	---	---	---	5.7	5.3	5.3
22.	% Real Change*	2.5	3.8	2.2	0.4	1.6	2.3	-0.4	-0.7	2.4	4.7	---	---	---	2.7	1.7	1.1
23.	% Price Change*	3.5	2.4	3.6	4.3	3.3	3.3	4.0	4.6	4.4	3.9	---	---	---	3.0	3.6	4.1
24.	Implicit Price Deflator	117.1	117.8	118.8	120.1	121.1	122.1	123.3	124.7	126.1	127.3	3.0	3.6	4.1	117.5	121.6	126.7
25.	Change in Final Sales	78.8	91.7	47.8	42.5	56.8	74.0	65.0	63.4	84.7	95.9	---	---	---	---	---	---
26.	GNP in 1982 Dollars	3795.3	3831.2	3852.5	3856.1	3871.9	3893.9	3889.9	3882.6	3905.7	3951.0	2.7	1.7	1.1	3812.8	3878.0	3921.6

Table 2.

Georgia State University
College of Business Administration
Economic Forecasting Center
November 1987

U.S. Real Expenditures for 1987-II and 1987-III with Forecasts for 1987-IV through 1989-III

	1987			1988				1989			Percent Change			Annual		
	II	III	IV	I	II	III	IV	I	II	III	86-87	87-88	88-89	1987	1988	1989
1. Personal Consumption	2487.5	2517.0	2507.6	2520.9	2533.6	2546.0	2546.7	2552.5	2562.1	2575.7	1.9	1.6	1.2	2497.0	2536.8	2566.7
2. Durable Goods	385.4	403.3	385.2	390.3	390.9	392.4	384.4	381.6	383.2	387.1	1.0	0.5	-1.7	387.5	389.5	382.8
3. Nondurable Goods	879.0	878.4	877.2	877.3	880.9	883.4	883.8	884.4	884.4	885.7	0.3	0.2	0.4	879.5	881.4	885.2
4. Services	1223.1	1235.4	1245.2	1253.3	1261.8	1270.2	1278.5	1286.5	1294.5	1302.9	3.4	2.9	2.6	1230.2	1266.0	1298.8
5. Gross Private Domestic Invest.	673.7	676.5	688.2	675.3	671.6	665.0	651.1	630.4	638.0	656.1	3.6	-1.7	-3.6	677.6	665.8	641.7
6. Residential Structures	196.8	196.7	194.7	185.8	178.7	181.5	187.1	190.1	195.0	199.3	0.1	-6.8	7.7	196.6	183.3	197.5
7. Other Structures	120.4	124.9	122.9	120.3	119.1	118.3	118.0	118.3	118.5	119.4	-6.2	-2.6	-0.1	122.2	118.9	118.8
8. Producers' Durables	317.5	336.8	340.5	333.1	335.8	334.9	336.2	327.0	330.2	332.6	3.7	3.0	-1.2	325.1	335.0	330.9
9. Change in Inventories	39.0	18.1	30.1	36.1	38.0	30.3	9.8	-5.0	-5.7	4.8	---	---	---	33.7	28.6	-1.1
10. Net Export of Goods and Services	-132.7	-137.9	-128.1	-124.4	-117.0	-104.4	-100.7	-94.3	-86.5	-76.7	---	---	---	-133.5	-111.6	-82.9
11. Exports	414.5	430.6	433.7	440.3	448.4	463.2	465.5	467.9	470.6	481.3	11.1	8.4	4.7	419.2	454.4	475.9
12. Imports	547.2	568.5	562.8	564.7	565.4	567.6	566.2	562.2	557.1	558.0	5.7	2.4	-1.3	552.9	566.0	558.5
13. Gov't Purchases of Goods & Services	766.7	775.5	784.8	784.3	783.7	787.3	792.8	794.0	792.1	795.9	2.3	2.0	1.1	771.7	787.0	795.9
14. Federal	332.6	338.3	345.4	342.7	339.9	342.0	346.6	345.1	342.6	344.5	1.0	2.1	0.7	335.9	342.8	345.3
15. State & Local	434.1	437.3	439.4	441.6	443.8	445.3	446.2	448.9	449.5	451.4	3.3	1.9	1.4	435.8	444.2	450.5
16. Gross National Product	3795.3	3831.2	3852.5	3856.1	3871.9	3893.9	3889.9	3882.6	3905.7	3951.0	2.7	1.7	1.1	3812.8	3878.0	3921.6
17. Final Demand	3756.3	3813.1	3822.4	3820.0	3833.9	3863.6	3880.1	3887.6	3911.4	3946.2	2.2	1.9	1.9	3779.1	3849.4	3922.6
18. Private Domestic Product	3408.4	3443.8	3465.7	3465.2	3481.2	3503.1	3498.4	3489.8	3512.0	3558.3	3.1	1.8	1.2	3425.4	3487.0	3528.4

Table 3.

Georgia State University
College of Business Administration
Economic Forecasting Center
November 1987

Income Related U.S. GNP Components for 1987-II and 1987-III with Forecasts for 1987-IV through 1989-III

		1987			1988				1989			Percent Change			Annual		
		II	III	IV	I	II	III	IV	I	II	III	86-87	87-88	88-89	1987	1988	1989
1.	Compensation of Employees	2623.4	2664.3	2708.8	2751.4	2788.0	2828.0	2860.7	2900.8	2941.8	2993.2	5.7	6.1	5.7	2646.6	2807.0	2965.9
2.	Wage and Salary	2191.6	2227.2	2264.7	2292.1	2322.8	2355.1	2384.3	2414.8	2448.7	2491.0	5.9	5.7	5.6	2211.7	2338.6	2469.1
3.	Manufacturing	479.0	484.9	493.3	496.7	501.3	505.5	506.6	506.6	510.9	516.1	2.8	3.9	2.0	483.6	502.5	512.7
4.	Other Commodity-Producing Industries	156.2	156.6	156.8	153.7	152.2	153.7	157.0	160.2	163.1	167.3	2.3	-1.4	7.3	156.3	154.2	165.3
5.	Distributive Industries	518.9	526.9	537.6	544.6	552.5	560.6	566.8	572.5	579.8	589.4	4.3	6.2	5.1	523.7	556.1	584.4
6.	Service Industries	619.4	634.4	684.8	659.6	673.2	686.2	699.8	712.6	726.5	743.3	10.9	6.8	8.2	636.3	679.7	735.1
7.	Military	73.0	73.4	73.9	76.3	77.3	77.4	77.7	80.5	81.4	81.8	4.0	5.4	5.5	73.3	77.2	81.5
8.	Civilian Government	345.1	350.8	354.7	361.2	366.3	371.7	375.5	382.4	387.0	393.1	7.1	6.1	5.8	347.5	368.7	389.9
9.	Supplements	432.0	437.1	444.1	459.3	465.2	472.9	477.3	486.0	493.1	502.2	4.6	7.8	6.1	435.0	468.7	497.0
10.	Proprietors' Income	323.1	322.1	325.5	325.7	326.6	329.4	332.7	336.4	340.3	346.4	11.5	1.8	4.5	322.9	328.6	343.2
11.	Business & Professional	275.8	283.0	286.2	287.2	287.9	290.2	291.4	292.2	296.7	301.5	10.3	3.8	3.2	278.7	289.2	298.3
12.	Farm	47.3	39.1	39.3	38.5	38.7	39.2	41.3	44.2	43.6	44.9	18.8	-10.9	14.1	44.3	39.4	45.0
13.	Rental Income	18.9	18.5	19.1	19.0	19.2	19.3	19.1	19.0	19.2	19.5	14.2	0.3	0.1	19.1	19.2	19.2
14.	Net Interest	331.1	339.5	348.7	351.8	353.2	355.0	354.6	354.1	354.4	359.4	2.9	5.3	0.9	335.7	353.7	356.7
15.	Corporate Profits Adj.	296.8	296.6	296.6	287.9	286.0	287.4	282.8	272.4	285.0	304.7	4.1	-3.4	1.6	296.0	286.0	290.5
16.	National Income	3593.3	3641.0	3698.7	3735.8	3773.0	3819.1	3849.9	3882.7	3940.7	4023.2	5.8	4.8	4.8	3620.3	3794.5	3975.6
17.	Indirect Business Tax	365.2	372.8	376.9	384.5	391.4	398.6	403.9	411.5	419.4	427.7	5.9	7.1	7.2	368.3	394.6	423.0
18.	Capital Consumption Adj.	-26.2	-28.6	-26.2	-24.0	-21.6	-21.3	-19.1	-17.7	-16.7	-14.2	---	---	---	-27.0	-21.5	-15.3
19.	Capital Consumption Alw.	502.8	509.1	516.9	522.3	528.1	535.4	541.6	546.8	552.1	558.3	6.0	5.0	4.4	506.4	531.9	555.5
20.	Business Transfers	23.1	23.3	23.6	23.9	24.2	24.6	24.9	25.3	25.7	26.1	4.0	5.2	6.1	23.2	24.4	25.9
21.	Net Govt. Subsidies	-9.9	-0.8	-6.6	-5.1	-2.3	0.9	-4.5	-4.2	-0.2	0.0	4.6	-69.9	-60.0	-9.2	-2.8	-1.1
22.	Statistical Discrepancy	-2.7	-1.8	-5.1	-8.1	-4.4	-3.0	-0.6	-3.6	2.4	9.6	---	---	---	-2.9	-4.0	3.9
23.	Gross National Product	4445.1	4512.0	4578.2	4629.3	4688.4	4754.3	4796.1	4840.8	4923.4	5030.7	5.7	5.3	5.3	4478.3	4717.0	4967.5

Table 4.

Georgia State University
College of Business Administration
Economic Forecasting Center
November 1987

Derivation of U.S. Personal Income for 1987-II and 1987-III with Forecasts for 1987-IV through 1989-III

	1987			1988				1989			Percent Change			Annual		
	II	III	IV	I	II	III	IV	I	II	III	86-87	87-88	88-89	1987	1988	1989
1. National Income	3593.3	3641.0	3698.7	3735.8	3773.0	3819.1	3849.9	3882.7	3940.7	4023.2	5.8	4.8	4.8	3620.3	3794.5	3975.6
2. Less: Corp. Profits Adj.	296.6	296.6	296.6	287.9	286.0	287.4	282.8	272.4	285.0	304.7	4.1	-3.4	1.6	296.0	286.0	290.5
3. Social Insurance	390.9	396.8	404.1	425.7	430.9	438.0	441.7	453.0	459.5	468.1	5.4	10.0	6.7	394.6	434.1	463.2
4. Plus: Gov't Transfers	518.4	522.1	525.5	537.3	543.3	547.7	552.1	565.1	571.8	576.5	4.7	5.0	5.2	519.2	545.1	573.6
5. Old Age, Survivors, etc.	282.3	284.4	286.0	294.7	296.9	298.8	300.3	308.9	312.4	314.5	5.0	5.3	5.1	282.7	297.7	313.0
6. Unemployment Benefits	14.9	14.5	14.2	14.2	14.3	14.7	15.2	16.5	16.7	17.3	-9.8	-1.4	17.1	14.6	14.6	17.1
7. Veterans' Benefits	16.7	16.6	16.5	16.8	17.0	16.8	16.7	16.9	17.0	16.9	-0.9	1.4	0.4	16.6	16.8	16.9
8. Employees' Retirement	76.0	77.0	77.9	79.0	80.7	81.8	82.9	84.1	85.6	86.6	7.2	6.4	6.1	76.2	81.1	86.0
9. A.F.D.C.	16.7	16.6	16.6	16.8	16.9	16.8	16.9	17.1	17.2	17.1	2.2	1.5	1.8	16.6	16.9	17.2
10. Other	111.6	113.0	114.3	115.8	117.5	118.8	120.1	121.6	122.9	124.1	5.5	5.1	4.6	112.3	118.1	123.5
11. Business Transfers	23.1	23.3	23.6	23.9	24.2	24.6	24.9	25.3	25.7	26.1	4.0	5.2	6.1	23.2	24.4	25.9
12. Interest Transfers	175.2	178.1	180.9	183.1	185.5	187.4	189.2	190.8	192.7	195.5	2.1	4.9	4.2	177.6	186.3	194.1
13. Personal Dividends	86.3	88.7	90.6	92.3	94.0	95.5	96.8	98.3	99.7	101.8	7.8	8.1	6.4	87.5	94.7	100.7
14. Equals: Personal Income	3708.6	3759.7	3818.6	3858.9	3903.1	3949.0	3988.4	4036.8	4086.1	4150.3	5.7	5.0	4.9	3737.2	3924.9	4116.2
15. Less: Personal Tax Payments	578.0	566.2	574.9	547.7	556.6	572.8	585.0	578.9	588.7	606.1	10.1	0.3	5.8	563.8	565.5	598.2
16. Equals: Disposable Personal Income	3130.6	3193.5	3243.7	3311.2	3346.5	3376.2	3403.4	3457.9	3497.4	3544.2	5.0	5.9	4.7	3173.4	3359.3	3518.1
17. Less: Consumption	2943.7	3003.7	3024.4	3068.9	3112.8	3158.5	3195.4	3240.8	3296.0	3354.7	5.9	5.6	6.0	2966.4	3133.9	3321.3
18. Less: Other Outlays	93.8	95.2	96.8	98.1	99.5	100.9	102.3	103.3	104.7	106.6	3.6	5.6	5.5	94.9	100.2	105.7
19. Equals: Personal Savings	93.2	94.6	122.5	144.2	134.2	116.8	105.7	113.8	96.7	82.9	-14.1	11.6	-26.4	112.2	125.2	91.1
20. Savings Rate (%)	3.0	3.0	3.8	4.4	4.0	3.5	3.1	3.3	2.8	2.3	-18.4	5.6	-30.4	3.6	3.8	2.6

Table 5.

Georgia State University
College of Business Administration
Economic Forecasting Center
November 1987

U.S. Federal Government Activity for 1987-II and 1987-III with Forecasts for 1987-IV through 1989-III

	1987			1988				1989			Percent Change			Annual		
	II	III	IV	I	II	III	IV	I	II	III	86-87	87-88	88-89	1987	1988	1989
1. Government Receipts	922.9	910.2	914.8	910.7	918.4	941.2	956.3	958.1	1003.2	1019.3	9.6	2.7	6.2	906.8	931.7	989.1
2. Personal Tax & Non-Tax	415.6	404.7	408.2	382.9	386.3	401.4	409.5	403.8	409.8	422.7	10.9	-1.9	5.5	402.5	395.0	416.9
3. Corporate Profits Tax	107.9	100.5	95.6	92.6	91.5	93.1	95.6	90.3	95.8	102.6	21.6	-8.4	5.7	101.8	93.2	98.5
4. Indirect Business Tax	54.2	54.6	55.3	57.6	58.9	60.2	60.7	62.6	63.9	65.1	6.8	9.2	8.4	54.4	59.4	64.3
5. Contributions for Social Security	345.2	350.4	355.7	377.6	381.7	386.5	390.5	401.4	406.3	412.8	5.6	10.3	6.6	348.2	384.1	409.4
6. Government Expenditures	1062.1	1063.7	1083.8	1096.1	1104.2	1109.0	1130.2	1144.6	1150.9	1162.2	3.2	4.2	4.6	1064.9	1109.9	1160.5
7. Purchases of Goods and Services	379.6	384.6	393.5	399.3	400.0	404.0	411.2	417.4	418.7	423.7	4.1	5.9	4.7	381.2	403.6	422.8
8. Defense	294.5	296.0	298.9	305.0	309.0	311.6	314.7	320.9	324.7	328.1	5.9	5.4	5.2	294.2	310.1	326.3
9. Durables	89.2	89.2	90.3	91.6	92.2	93.1	93.5	94.3	94.8	95.4	6.3	3.8	2.7	89.2	92.6	95.1
10. Nondurables	10.5	10.9	11.2	11.5	11.7	11.8	12.1	12.2	12.4	12.7	-4.5	11.3	6.8	10.6	11.8	12.6
11. Military Compensation	73.0	73.4	73.9	76.3	77.3	77.4	77.7	80.5	81.4	81.8	4.0	5.4	5.5	73.3	77.2	81.5
12. Civilian Compensation	35.5	35.6	35.7	36.9	37.0	37.1	37.2	38.3	38.5	38.6	4.7	4.5	4.0	35.5	37.1	38.5
13. Other Services	79.5	80.0	80.9	81.6	83.8	85.1	86.9	88.4	90.3	92.2	9.6	7.0	8.2	78.8	84.4	91.3
14. Structures	6.8	6.9	6.9	7.1	7.0	7.1	7.3	7.2	7.3	7.4	4.9	2.5	3.5	7.0	7.1	7.4
15. Nondefense	85.1	88.6	94.6	94.3	91.0	92.4	96.5	96.5	94.0	95.6	-1.6	7.6	3.1	86.9	93.6	96.5
16. Durables	4.8	4.9	4.8	4.9	4.9	4.9	5.0	5.1	5.2	5.3	13.3	5.3	6.6	4.7	4.9	5.3
Nondurables	1.5	5.2	10.8	8.5	4.9	5.8	9.3	7.6	4.3	5.3	---	---	---	4.9	7.1	6.4
17. CCC Inventory Change	-5.1	-1.2	4.3	1.9	-1.7	-0.8	2.5	0.8	-2.6	-1.7	---	---	---	-1.6	0.5	-0.5
18. Other Nondurables	6.6	6.4	6.5	6.6	6.6	6.6	6.8	6.8	6.9	7.0	5.9	5.0	4.9	6.3	6.6	7.0
19. Compensation	41.6	41.7	41.8	43.2	43.2	43.3	43.4	44.6	44.9	45.0	4.8	4.2	3.8	41.5	43.3	44.9
20. Other Services	29.1	28.8	29.2	29.6	30.0	30.4	30.6	31.0	31.5	31.8	5.2	7.4	4.7	28.1	30.2	31.6
21. Structures	8.0	8.1	8.0	8.1	8.0	7.9	8.1	8.2	8.1	8.2	15.6	3.2	2.5	7.8	8.0	8.2
22. Transfer Payments	412.0	416.8	419.1	425.7	432.7	433.9	439.8	446.8	452.4	456.1	3.4	4.7	4.9	413.7	433.0	454.4
23. Grants-in-Aid to State and Local Governments	106.0	103.6	104.3	103.5	104.8	105.5	106.4	106.0	107.1	107.8	-2.6	1.0	2.2	104.0	105.1	107.4
24. Net Interest Paid	139.8	142.8	145.3	147.4	149.3	151.4	153.0	154.8	156.9	158.9	4.5	5.9	5.0	141.9	150.3	157.8
25. Deficit of Government Enterprises	24.8	15.8	21.6	20.2	17.4	14.2	19.8	19.6	15.8	15.7	3.4	-25.8	1.9	24.1	17.9	18.2
26. Federal Surplus	-139.2	-153.5	-169.0	-185.4	-185.8	-167.8	-173.9	-186.5	-175.1	-159.0	---	---	---	-158.1	-178.2	-171.3
27. Federal Debt Held by Individuals	1657.7	1704.7	1726.5	1757.9	1786.0	1827.4	1856.0	1892.0	1923.0	1964.7	9.8	7.4	7.6	1682.6	1806.8	1943.8
28. Total Government Surplus	-88.6	-111.3	-126.5	-151.3	-149.7	-132.2	-138.0	-158.2	-141.0	-120.4	----	---	---	-114.0	-142.8	-136.4

Table 6.

Georgia State University
College of Business Administration
Economic Forecasting Center
November 1987

Selected Economic Variables of the U.S. Economy for 1987-II and 1987-III with Forecasts for 1987-IV through 1989-III

	1987			1988				1989			Percent Change			Annual		
	II	III	IV	I	II	III	IV	I	II	III	86-87	87-88	88-89	1987	1988	1989
Private Economy																
1. Change in Private Hourly Wage Costs	3.0	4.2	3.7	5.8	4.0	4.6	4.0	5.5	4.7	5.0	3.0	4.4	4.7	13.02	14.57	15.25
2. Change in Output Per Worker Hour	0.9	1.9	-0.7	-0.3	0.6	1.1	-1.2	-0.7	1.4	2.9	0.7	0.2	0.3	21.981	22.035	22.101
3. Change in Implicit Unit Labor Costs	2.0	2.3	4.5	6.1	3.4	3.5	5.2	6.3	3.3	2.1	2.3	4.2	4.4	0.635	0.661	0.690
4. Change in Private Price Deflator	3.6	2.0	3.4	4.1	3.2	3.3	4.0	4.3	4.6	3.9	2.7	3.4	4.0	1.161	1.201	1.249
Prices																
5. Consumer Price Index	338.8	342.6	346.3	349.5	353.2	356.7	360.5	364.7	369.6	374.6	3.7	4.2	4.8	340.6	355.0	371.9
6. Industrial Commod. (Producer Price Index)	319.4	323.2	325.7	328.4	330.6	333.0	337.7	342.3	346.5	350.2	2.8	3.6	4.8	320.8	332.4	348.5
Corporate Economy																
7. After Tax Profit	134.5	135.5	136.4	132.6	131.3	131.2	135.6	130.7	139.4	148.0	5.5	-0.9	7.6	133.9	132.7	142.8
8. Inventory Profits	-20.0	-13.5	-8.1	-8.4	-6.8	-7.3	-18.6	-16.8	-20.1	-17.2	---	----	---	-13.2	-10.3	-24.5
9. Genuine Profits	162.6	170.6	176.1	171.2	170.6	170.2	162.4	158.9	164.2	175.0	-5.9	-0.1	-1.4	168.8	168.6	166.2
10. Mean Closing Dow Jones	2325.9	2569.2	2031.8	1829.6	1785.3	1829.3	1767.3	1889.5	1976.8	2045.6	27.1	-20.9	9.4	2278.4	1802.9	1972.0
11. Mean Closing NY Composite	165.49	178.95	145.55	140.27	136.85	139.43	133.98	146.39	157.62	164.73	19.3	-15.2	13.9	162.3	137.6	156.8
Financial																
12. Monetary Base	263.0	266.0	270.4	275.4	279.8	284.4	288.5	293.3	298.9	305.1	8.2	6.6	7.0	264.7	282.0	301.7
13. Checkable Deposits	559.9	556.6	563.8	576.6	584.7	597.4	608.1	622.0	636.4	649.0	12.5	6.1	8.5	557.9	591.7	642.0
14. M1	750.0	749.9	760.6	776.6	787.9	803.9	817.6	834.7	852.8	869.5	11.4	6.2	8.0	749.7	796.5	860.3
15. Velocity of M1	5.890	5.981	5.983	5.924	5.914	5.878	5.831	5.764	5.739	5.752	-5.0	-0.8	-2.5	5.936	5.837	5.740
16. M2	2840.6	2861.5	2912.7	2974.1	3026.9	3080.0	3130.3	3187.4	3255.3	3320.9	6.6	6.8	7.6	2859.8	3052.8	3284.7
17. Velocity of M2	1.555	1.567	1.562	1.547	1.539	1.534	1.523	1.510	1.503	1.506	-0.7	-1.3	-2.1	1.556	1.536	1.503
18. Federal Funds	6.65	6.84	7.03	6.73	6.88	6.68	6.27	5.43	5.27	5.46	-1.8	-0.7	-19.9	6.69	6.64	5.32
19. Prime Rate	8.05	8.40	8.86	8.75	8.75	8.53	8.25	7.63	7.36	7.25	-1.6	4.5	-14.7	8.20	8.57	7.31
20. 6 Month T-Bills	5.98	6.18	6.03	5.93	6.14	5.86	5.67	5.04	4.93	5.17	-1.6	-0.6	-14.7	5.93	5.90	5.04
21. Seasoned AAA Corp.	9.17	9.76	10.25	9.68	9.87	9.38	9.02	8.69	8.56	8.86	4.0	1.1	-8.7	9.39	9.49	8.66
22. FHA Mortgage Rates	10.32	10.50	10.69	10.53	10.76	10.26	9.97	9.65	9.61	9.78	-0.1	2.1	-7.2	10.16	10.38	9.64
Miscellaneous																
23. Housing Starts	1612	1622	1577	1445	1438	1490	1528	1556	1615	1626	-9.2	-10.7	9.5	1651	1475	1616
24. Single Family Starts	1142	1141	1093	976	955	1001	1026	1043	1089	1106	-2.5	-14.5	10.5	1158	990	1093
25. Unit Auto Sales	10.20	11.00	9.23	9.85	9.93	10.25	9.15	8.90	9.00	9.15	-14.3	-1.6	-10.1	9.96	9.80	8.80
26. Civilian Employment	112.180	112.860	113.516	113.935	114.439	114.840	115.222	115.488	116.054	116.504	2.6	1.9	1.8	112.453	114.609	116.683
27. Unemployment Rate	6.2	6.0	5.8	5.8	5.8	5.9	5.9	6.1	6.1	6.2	-11.8	-5.1	5.1	6.2	5.9	6.2
28. Industrial Production	126.2	130.9	131.9	131.7	131.5	132.2	130.3	129.6	130.2	132.2	3.1	1.9	-0.6	129.0	131.4	130.6
29. Asset-Consumption Ratio	4.485	4.508	4.207	4.152	4.079	4.089	4.034	4.142	4.211	4.215	2.9	-7.7	1.6	4.429	4.089	4.155

Table 7.

Georgia State University
College of Business Administration
Economic Forecasting Center
November 1987

U. S. Foreign Trade Accounts for 1986 with Forecasts for 1987 through 1989

	1986	1987	1988	1989	Percent Change 86-87	87-88	88-89
Exports of U.S. Merchandise	216629	247472	277710	302438	14.2	12.2	8.9
Food & Live Animals	17303	19300	21920	23218	11.5	13.6	5.9
Beverages & Tobacco	2920	3636	3984	4244	24.5	9.6	6.5
Crude Materials	17324	19424	21685	23906	12.1	11.6	10.2
Mineral Fuels	8115	7620	8561	11041	-6.1	12.4	29.0
Animal & Vegetable Oils	1015	958	1178	1278	-5.6	22.9	8.5
Chemicals	22766	26695	29870	31808	17.3	11.9	6.5
Manufactured Goods	14005	17017	19355	21431	21.5	13.7	10.7
Machinery, Trans. Equipment	95290	104982	115708	123805	10.2	10.2	7.0
Miscellaneous Manufacturing	16654	19185	22828	25633	15.2	19.0	12.3
Commodities, n.e.c.	10986	19980	22800	25159	81.9	14.1	10.3
Foreign Merchandise	10928	8741	9823	10914	-20.0	12.4	11.1
Imports of Merchandise	382964	420627	441347	446817	9.8	4.9	1.2
Food & Live Animals	22395	22166	22548	24488	-1.0	1.7	8.6
Beverages & Tobacco	4226	4415	4460	4388	4.5	1.0	-1.6
Crude Materials	11176	12123	12395	10644	8.5	2.2	-14.1
Mineral Fuels	39838	47838	52653	62139	20.1	10.1	18.0
Animal & Vegetable Oils	581	594	670	712	2.2	12.9	6.2
Chemicals	15812	16715	17499	17381	5.7	4.7	-0.7
Manufactured Goods	51700	56036	58790	57760	8.4	4.9	-1.8
Machinery, Trans. Equipment	166240	178066	183548	182032	7.1	3.1	-0.8
Miscellaneous Manufacturing	60079	70745	76420	75000	17.8	8.0	-1.9
Commodities, n.e.c.	15042	11918	12365	12273	-20.8	3.8	-0.7
Foreign Transactions							
Total Exports	376.2	421.6	463.7	500.0	12.1	10.0	7.9
Merchandise Exports	224.9	254.1	285.1	309.8	13.0	12.2	8.7
Factor Income	86.1	92.4	99.2	105.1	7.4	7.3	6.0
Other Services	65.2	75.0	79.4	85.2	15.1	5.8	7.4
Total Imports	481.7	538.6	569.0	585.6	11.8	5.6	2.9
Merchandise Imports	367.5	406.8	427.7	435.4	10.7	5.1	1.8
Factor Income	52.4	64.0	70.4	75.8	22.3	10.0	7.6
Other Services	61.9	67.8	70.9	74.5	9.6	4.5	5.1
Transfer	15.7	13.6	14.4	14.3	-13.5	5.7	-0.4
Government Interest	22.6	24.8	28.4	32.4	9.7	14.6	13.8
Net Foreign Investment	-143.9	-155.5	-148.2	-132.1	---	---	---
Trade Weighted Value of Dollar (3/73=100)	112.3	97.8	93.9	95.8	-12.9	-4.0	2.0

Table 8. Economic Forecasting Center November 1987

Implicit Price Deflators for Personal Consumption Expenditures for 1987-II and 1987-III with Forecasts for 1987-IV through 1989-III

	1987			1988				1989			Percent Change			Annual		
	II	III	IV	I	II	III	IV	I	II	III	86-87	87-88	88-89	1987	1988	1989
Durable Goods	106.1	107.3	107.6	108.2	108.7	109.4	109.9	110.3	111.3	112.2	1.6	2.3	2.4	106.6	109.0	111.6
% Change	2.9	4.4	1.2	2.2	2.0	2.6	1.9	1.4	3.6	3.5						
Automobiles	113.9	115.3	116.5	117.0	118.0	119.2	120.2	120.9	122.0	123.2	3.3	3.6	3.4	114.5	118.6	122.6
% Change	5.9	4.7	4.3	1.8	3.3	4.1	3.4	2.4	3.7	4.0						
Furniture	95.7	96.0	96.0	95.9	95.6	95.3	95.5	95.6	95.7	95.9	-0.7	-0.5	0.3	96.0	95.6	95.8
% Change	-2.6	1.2	-0.2	-0.4	-1.2	-1.2	0.8	0.2	0.5	0.8						
Other Durables	110.5	111.2	112.4	113.8	114.7	115.9	117.1	117.8	120.1	121.5	3.5	4.1	4.5	110.8	115.4	120.5
% Change	5.0	2.6	4.2	5.0	3.3	4.4	4.1	2.3	8.0	5.0						
Nondurables	111.7	112.5	113.7	114.5	115.4	116.3	117.7	119.2	120.8	122.4	4.5	3.6	4.8	111.9	116.0	121.5
% Change	7.2	2.7	4.2	3.0	3.0	3.5	4.7	5.2	5.6	5.2						
Food	116.6	117.4	118.5	119.3	120.4	121.4	122.6	124.0	125.3	126.7	4.5	3.4	4.2	116.9	120.9	126.0
% Change	5.6	2.8	3.7	2.7	3.7	3.4	4.0	4.7	4.3	4.5						
Apparel	111.8	110.1	111.7	112.2	113.0	113.8	114.9	115.8	116.8	117.9	4.3	2.7	3.4	110.5	113.5	117.4
% Change	12.7	-5.8	6.0	1.8	2.8	2.8	3.8	3.2	3.6	3.8						
Gasoline & Oil	78.9	81.7	82.2	83.0	82.5	83.3	84.9	87.3	91.0	93.6	5.9	4.6	10.1	79.7	83.4	91.8
% Change	16.7	14.9	2.3	3.7	-2.3	4.2	7.8	11.8	17.9	12.2						
Fuel Oil	75.2	76.6	78.0	80.9	81.3	81.9	84.1	87.0	89.8	91.4	1.1	8.2	10.3	75.8	82.0	90.5
% Change	10.8	7.6	7.4	15.7	1.9	2.9	11.3	14.6	13.7	7.0						
Other Nondurables	124.1	125.4	126.8	128.0	129.4	130.7	132.2	133.7	135.2	136.7	4.2	4.2	4.5	124.8	130.1	136.0
% Change	4.2	4.4	4.5	3.8	4.4	4.1	4.6	4.5	4.7	4.5						
Services	126.9	128.1	129.5	131.0	132.5	133.9	135.5	137.2	139.1	140.9	4.1	4.5	-0.8	127.5	133.2	132.1
% Change	4.5	3.8	4.4	4.7	4.5	4.5	4.8	5.2	5.6	5.4						
Housing	129.7	131.3	132.9	134.6	136.1	137.7	139.5	141.3	143.3	145.2	4.6	4.9	5.3	130.6	137.0	144.2
% Change	4.2	4.9	4.9	5.2	4.5	4.8	5.3	5.3	5.8	5.4						
Electricity & Gas	112.7	113.3	112.8	113.3	113.9	114.9	115.2	116.2	117.3	118.5	-1.2	1.5	3.0	112.7	114.3	117.7
% Change	3.2	2.1	-2.0	1.9	2.3	3.3	1.1	3.6	3.6	4.4						
Household Operations	124.6	125.6	126.7	127.6	129.4	130.7	132.1	133.3	134.7	136.0	2.5	3.8	4.2	125.1	129.9	135.3
% Change	2.8	3.2	3.6	3.0	5.7	4.2	4.3	3.8	4.0	4.0						
Transportation	118.5	119.5	121.9	123.4	124.6	125.5	127.2	129.6	132.5	134.8	5.9	4.9	6.5	119.3	125.2	133.3
% Change	3.5	3.2	8.4	5.2	3.7	3.1	5.3	7.7	9.5	6.9						
Medical Care	132.4	133.6	135.2	136.9	138.6	140.3	142.2	144.3	146.5	148.8	4.8	4.9	5.8	133.0	139.5	147.6
% Change	4.7	3.9	4.7	5.2	5.1	4.9	5.6	6.0	6.3	6.4						
Other Services	125.8	126.8	128.1	129.5	130.9	132.3	133.7	135.1	136.6	138.1	4.0	4.3	4.4	126.2	131.6	137.3
% Change	5.5	3.3	4.1	4.5	4.4	4.3	4.3	4.2	4.5	4.5						
Personal Consump Exp	118.3	119.3	120.6	121.7	122.9	124.1	125.5	127.0	128.6	130.2	4.0	4.0	4.7	118.8	123.6	129.4
% Change	4.9	3.4	4.4	3.7	4.0	4.0	4.6	4.9	5.1	5.1						
Consumer Price Index	338.8	342.6	346.3	349.5	353.2	356.7	360.5	364.7	369.6	374.6	3.7	4.2	4.8	340.6	355.0	371.9
% Change	5.2	4.6	4.4	3.7	4.3	4.0	4.3	4.7	5.5	5.5						

Table 9.

Georgia State University
College of Business Administration
Economic Forecasting Center
November 1987

Implicit Price Deflators with Annual Percentage Changes for 1987-II and 1987-III with Forecasts for 1987-IV through 1989-III

	1987			1988				1989			Percent Change			Annual		
	II	III	IV	I	II	III	IV	I	II	III	86-87	87-88	88-89	1987	1988	1989
GNP Deflator	117.1	117.8	118.8	120.1	121.1	122.1	123.3	124.7	126.1	127.3	3.0	3.6	4.1	117.5	121.6	126.7
% Change	3.5	2.4	3.6	4.3	3.3	3.3	4.0	4.6	4.4	3.9						
Personal Cons. Exp.	118.3	119.3	120.6	121.7	122.9	124.1	125.5	127.0	128.6	130.2	4.0	4.0	4.7	118.8	123.6	129.4
% Change	4.9	3.4	4.4	3.7	4.0	4.0	4.6	4.9	5.1	5.1						
Private Domestic Investment	104.3	104.7	104.3	105.0	105.4	105.9	106.4	106.7	107.1	107.9	1.7	1.2	1.8	104.4	105.7	107.5
% Change	0.5	1.5	-1.4	2.7	1.4	1.8	1.8	1.1	1.8	3.1						
Structures	107.8	106.8	107.4	107.8	108.4	108.9	109.7	110.4	111.2	112.0	1.6	1.4	2.7	107.2	108.7	111.6
% Change	3.4	-3.7	2.3	1.5	2.2	1.9	3.0	2.6	2.9	2.9						
Producers' Durables	96.0	94.8	95.2	95.3	95.5	95.7	96.0	96.2	96.3	96.6	0.1	0.1	0.9	95.6	95.6	96.5
% Change	-1.2	-4.9	1.7	0.4	0.8	0.8	1.3	0.8	0.4	1.3						
Residential Structures	115.7	116.1	117.1	118.3	119.4	120.2	121.3	122.3	123.6	125.0	4.1	3.6	3.7	115.7	119.8	124.3
% Change	7.2	1.4	3.5	4.2	3.8	2.7	3.7	3.3	4.3	4.6						
Exports	100.4	100.6	101.0	101.3	101.7	102.2	102.9	103.7	104.7	105.6	0.8	1.5	3.0	100.5	102.0	105.1
% Change	2.0	0.8	1.6	1.2	1.6	2.0	2.8	3.1	3.9	3.5						
Imports	97.7	97.6	98.6	99.4	100.0	100.8	101.9	103.2	104.3	105.4	5.7	3.2	4.3	97.4	100.5	104.9
%Change	9.1	-0.4	4.2	3.3	2.4	3.2	4.4	5.2	4.3	4.3						
Federal	114.1	113.7	113.9	116.5	117.7	118.1	118.6	121.0	122.2	123.0	3.0	3.8	4.0	113.5	117.7	122.4
% Change	7.3	-1.4	0.7	9.4	4.2	1.4	1.7	8.3	4.0	2.6						
Federal Purchases	109.3	108.6	109.0	110.8	112.1	112.8	113.5	114.9	116.2	117.3	2.3	3.5	3.8	108.5	112.3	116.6
% Change	8.9	-2.5	1.5	6.8	4.8	2.5	2.5	5.0	4.6	3.8						
Federal Value Added	122.3	122.5	122.8	126.6	127.4	127.6	127.9	131.8	132.8	133.1	4.1	4.2	4.2	122.2	127.4	132.8
% Change	3.3	0.7	1.0	13.0	2.6	0.6	0.9	12.8	3.1	0.9						
State & Local	123.8	125.5	127.0	128.4	130.0	131.7	133.4	134.8	136.5	138.2	4.5	5.0	5.0	124.7	130.9	137.4
% Change	4.7	5.6	4.9	4.5	5.1	5.3	5.3	4.3	5.1	5.1						
State & Local Purchases	112.3	113.6	114.7	115.9	117.2	118.5	119.9	121.3	122.8	124.2	2.7	4.3	4.8	113.0	117.9	123.5
% Change	2.9	4.7	3.9	4.3	4.6	4.5	4.8	4.8	5.0	4.6						
State & Local Value Added	133.2	135.2	137.1	138.7	140.6	142.6	144.5	146.1	147.9	149.9	6.1	5.5	5.2	134.2	141.6	148.9
% Change	5.9	6.1	5.7	4.8	5.6	5.8	5.4	4.5	5.0	5.5						

Table 10.

Georgia State University
College of Business Administration
Economic Forecasting Center
November 1987

Consumption Details for 1987-II and 1987-III with Forecasts for 1987-IV through 1989-III

	1987			1988				1989			Percent Change			Annual		
	II	III	IV	I	II	III	IV	I	II	III	86-87	87-88	88-89	1987	1988	1989
CURRENT DOLLARS																
Durable Goods	409.0	432.6	414.4	422.2	424.9	429.3	422.5	420.9	426.4	434.5	2.6	2.8	0.6	413.0	424.7	427.4
Motor Vehicles & Parts	189.6	210.6	191.3	199.4	202.8	207.6	199.5	197.9	202.0	208.8	-1.4	5.2	0.0	192.3	202.3	202.3
Furniture	146.0	147.7	147.8	146.8	145.6	144.6	145.0	144.8	144.8	145.0	5.0	-0.9	-0.3	146.9	145.5	145.0
Other	73.5	74.3	75.3	76.0	76.5	77.1	78.0	78.2	79.6	80.7	9.3	4.1	4.1	73.9	76.9	80.0
Nondurable Goods	982.1	988.1	997.0	1004.6	1016.2	1027.8	1040.1	1054.2	1068.7	1083.8	4.8	3.9	5.3	984.3	1022.2	1075.9
Food	515.0	516.6	521.2	526.0	531.9	537.8	544.2	551.6	558.0	565.1	3.8	3.5	5.0	516.9	535.0	561.6
Clothing & Shoes	175.8	178.9	179.4	179.1	180.7	182.3	183.8	184.9	187.0	189.1	5.7	2.5	3.5	177.0	181.5	187.9
Gas & Oil	80.6	81.9	82.7	83.7	84.2	85.4	86.6	88.7	91.7	94.1	6.6	5.9	8.8	80.3	85.0	92.5
Fuel Oil & Coal	16.1	15.4	15.6	16.1	16.5	16.7	16.9	17.4	17.7	18.0	-2.3	5.9	7.7	15.6	16.6	17.8
Other	194.6	195.2	198.1	199.7	202.9	205.6	208.6	211.6	214.3	217.5	6.4	5.0	5.8	194.4	204.2	216.0
Services	1552.6	1583.0	1613.0	1642.1	1671.7	1701.4	1732.8	1765.7	1800.9	1836.4	7.6	7.5	7.8	1569.1	1687.0	1818.3
Housing	464.1	472.7	481.5	490.7	499.3	508.2	517.9	527.8	538.4	548.9	7.3	7.5	7.9	468.7	504.0	543.6
Household Operations Gas & Electric	85.8	88.4	87.5	88.7	89.9	91.1	91.7	93.1	94.4	95.9	-1.1	4.3	5.1	86.6	90.4	95.0
Household Operations Other	93.8	96.3	97.4	98.5	100.0	101.3	102.5	103.6	104.9	106.2	4.3	6.1	4.9	94.8	100.6	105.5
Transportation	103.7	104.4	106.9	108.5	109.5	110.6	112.3	114.4	116.9	119.0	7.2	5.7	6.9	104.3	110.2	117.8
Medical Care	346.8	354.3	362.7	370.6	379.1	337.2	395.9	405.3	415.2	426.3	9.6	9.3	9.8	350.6	383.2	420.7
Other	458.5	466.9	477.0	485.1	493.9	503.0	512.5	521.5	531.1	540.1	8.5	7.4	7.4	464.2	498.6	535.8
CONSTANT DOLLARS																
Durable Goods	385.4	403.3	385.2	390.3	390.9	392.4	384.4	381.6	383.2	387.1	1.0	0.5	-1.7	387.5	389.5	382.8
Motor Vehicles & Parts	166.4	182.7	164.2	170.4	171.9	174.2	166.0	163.7	165.6	169.5	-4.5	1.7	-3.2	167.9	170.6	165.1
Furniture	152.5	153.8	154.0	153.1	152.3	151.7	151.8	151.5	151.3	151.2	5.7	-0.5	-0.6	153.0	152.2	151.3
Other	66.5	66.8	67.0	66.8	66.7	66.5	66.6	66.4	66.3	66.4	5.7	0.1	-0.6	66.7	66.8	66.4
Nondurable Goods	879.0	878.4	877.2	877.3	880.9	883.4	883.8	884.4	884.4	885.7	0.3	0.2	0.4	879.5	881.4	885.2
Food	441.6	439.9	439.8	440.9	441.8	443.0	443.9	444.8	445.3	446.0	-0.6	0.0	0.8	442.2	442.4	445.8
Clothing & Shoes	157.3	162.5	160.6	159.6	159.9	160.2	160.0	159.7	160.1	160.4	1.4	-0.2	0.1	160.2	159.9	160.1
Gas & Oil	102.1	100.2	100.6	100.9	102.1	102.5	102.0	101.6	100.8	100.5	0.4	1.2	-1.1	100.7	101.9	100.7
Fuel Oil & Coal	21.4	20.1	20.0	19.9	20.3	20.4	20.1	20.0	19.7	19.7	-3.8	-2.2	-2.3	20.6	20.2	19.7
Other	156.8	155.6	156.2	156.0	156.8	157.3	157.8	158.3	158.5	159.1	2.1	0.8	1.2	155.8	157.0	158.9
Services	1223.1	1235.4	1245.2	1253.3	1261.8	1270.2	1278.5	1286.5	1294.5	1302.9	3.4	2.9	2.6	1230.2	1266.0	1298.8
Housing	357.7	360.0	362.3	364.6	366.9	369.1	371.3	373.5	375.7	378.0	2.5	2.5	2.4	358.8	368.0	376.9
Household Operations Gas & Electric	76.1	78.0	77.6	78.3	78.9	79.3	79.6	80.1	80.5	80.9	0.1	2.8	2.1	76.9	79.0	80.7
Household Operations Other	75.3	76.7	76.9	77.2	77.3	77.5	77.6	77.7	77.9	78.1	1.8	2.1	0.7	75.8	77.4	78.0
Transportation	87.5	87.4	87.7	87.9	87.9	88.1	88.3	88.3	88.2	88.3	3.5	0.8	0.3	87.4	88.1	88.3
Medical Care	262.0	265.1	268.3	270.7	273.5	276.0	278.4	280.9	283.4	286.5	4.6	4.2	3.7	263.5	274.7	284.9
Other	364.5	368.2	372.4	374.6	377.3	380.2	383.3	386.0	388.8	391.1	4.4	3.0	3.0	367.8	378.9	390.0

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Forecast of the Nation 1988 I - 1989 IV

ECONOMIC FORECASTING CENTER

Georgia State University
College of Business Administration
February 1988
Dr. Donald Ratajczak, Director

ECONOMIC FORECASTING CENTER

Dr. Donald Ratajczak, Director

The Economic Forecasting Center was established in 1973 at what was then the school of Business Administration, Georgia State University, to provide an academic environment suitable for business forecasting, conducting research and providing services for the college, the business community and the center's sponsors and subscribers.

Accuracy in forecasting is a primary goal of the center. The center's major objectives are:

HISTORICAL DATA: To provide data, develop procedures and create econometric descriptions of the economic systems of the United States, the Southeast, Georgia and the Atlanta metropolitan area.

RESEARCH: To provide a laboratory for research on forecasting and related topics and to instruct students in applied economics in order to increase the number and availability of locally trained individuals with forecasting experience.

FORECASTS: To create forecasts of the national, regional and local economies and to present working papers on the responsiveness of these economies to local and national government policies.

PROBLEM SOLVING: To become a focal point for information gathering and analysis of economic problems that regularly affect business, government and academic organizations, and to establish a forum where business and academicians can interact and attempt to solve complex economic problems.

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Georgia State University
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Economic Forecasting Center
College of Business Administration
404/651-3282

February 12, 1988

Enclosed are the latest quarterly forecasts prepared by the Economic Forecasting Center at Georgia State University.

Our forecast does not contain a recession at the present time. However, it indicates two distinct periods of inventory excesses that need to be removed. The first inventory excess occurs immediately at the retail and wholesale level, especially in automobiles and nondurables. Most of the nondurable inventory excesses are assumed to be imported goods, whose correction will have minimal effect upon U.S. economic activity. The second inventory correction is expected in 1989 as manufacturers discover that export activity cannot continue to grow in real double-digit ranges. They will then discover that their inventories are excessive and need to be corrected.

While these inventory corrections are taking place, construction also is expected to decline significantly while the savings rate is expected to remain at higher levels than in recent years. Strong export activity will provide sufficient offsetting strength to prevent the economy from dipping into recession. Clearly, any weaker export activity, greater consumer retrenchment, or more coordinated inventory adjustments between retailers and manufacturing could tilt the outlook into recession in 1988. The odds of a recession are probably one in three at the present time.

Of course, the stuttering economy that we foresee should keep interest rates from rising significantly and prevent inflation from becoming a serious problem.

If you have any comments concerning this forecast, please forward them to me.

Sincerely,

Dr. Donald Ratajczak
Director
Economic Forecasting Center

DR
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INVENTORY EXCESSES THREATEN RECESSION

Dr. Donald Ratajczak
Director
Economic Forecasting Center
Georgia State University

Summary

As expected, the stock market crash led to consumer retrenchment. The savings rate during the fourth quarter rebounded to 4.9% from an unusually low 2.8% in the summer months. Weakness in consumer spending was not fully anticipated by producers, who added dramatically to their inventories. Final demand only increased 0.6% after inflation in the fourth quarter. Moreover, as the accounting system treats agricultural inventories acquired by the Commodity Credit Corporation as if they are purchases made by the federal government, final demand adjusted for this fell 1.4% during the fourth quarter.

Although manufacturers clearly desire some of their inventory accumulation, the automobile industry has too high an inventory burden. In addition, retailers and wholesalers are holding too many nondurable goods, although some of these may be provided by foreign suppliers. As automobile inventories are corrected during the first quarter, economic activity should decline slightly. Construction also should weaken. Modest growth is expected in consumer activity for the remainder of this year while export activity should propel most manufacturing upward. As a result, a recession probably will be avoided, but only barely. Real economic activity should expand 2% in 1988 and a relatively sluggish 1.6% in 1989.

Inflation is gradually intensifying, as oil prices should begin rebounding later in the year along with grocery store prices. However, both price categories should be declining early in 1988. This will lead to gains in the GNP deflator of only 3.1% for 1988 followed by a 4.1% increase in 1989. Consumer prices are expected to increase 3.7% in 1988 before rebounding to a 4.8% rate of gain in 1989.

Stock market values are not expected to show much price trend during 1988 or 1989. The prime rate could dip to 8.25% early in 1988 and then fall slightly further to 8% in 1989. Long-term bonds, which could dip as low as 8.25% for government bonds early in 1988, should rebound to more than a 9% yield by the end of the forecast period.

Outlook

The outlook is one of stuttering economic growth but without a discernible recession. However, the greatest risk in this outlook at the present time is the responsiveness of consumers and capital equipment procurers to the economic weakness generated by inventory adjustments early in 1988.

A significant inventory buildup by manufacturers began late in 1987 as they began to experience delivery delays and price hikes for the raw materials they were seeking. In December, delivery delays reached an index of 71 in that important leading indicator. In several previous cycles, delivery lags did not exceed an index of 72. What normally happens at these high levels of raw material disruptions is a spurt in prices and a temporary rebound in orders that begins to encourage increased manufacturing activity. Although manufacturers clearly desire the inventories that are being acquired, they are more willing to accept inventories because of the apparent low cost of having full warehouses. (When raw material prices are rising, excess inventories may actually generate a one-time profit). Whether manufacturers have already overdone material inventories remains to be seen. Manufacturing orders remain robust, and the ratio of orders to shipments remains greater than one. This typically indicates that manufacturing production will continue to expand.

At the same time that manufacturers were increasing inventory accumulations, retailers were discovering that consumers were resisting their steep price increases for some products. Clothing stayed on the racks. Some electronics goods did not sell as well as anticipated. This has caused an excess supply of retail and wholesale inventories that need to be worked off before new merchandise is vigorously ordered. Some of the merchandise was produced abroad and will merely lower imports in the months ahead. However, the excess auto inventories clearly require production curtailments at home.

These excess inventories appear to be diminishing with the onset of production curtailments in the first quarter. In addition, construction declines are beginning to develop. As expected, housing sales momentarily have been stalled by the stock market trauma. Although lower interest rates will re-excite housing later this year, builders currently are holding 7.4 months of unsold inventory. Also, commercial building is now trending sharply downward.

Nearly offsetting the weakness generated by inventory adjustments and construction declines during the first quarter will be further gains in export activity. Although unsold inventory of imported goods may not stem the inflow of manufactured goods during the first quarter, import flows should be down in the second quarter. Thus, significant gains in the trade accounts should help to offset weakness in construction and consumption.

Of course, the consumer may retrench even further. If so, manufacturing inventory soon would become top-heavy and a general recession could ensue. However, consumer retrenchment already has been significant. Automobile vehicles are now being purchased at only replacement levels. Previous rapid gains in furniture sales have given way to modest declines. A reduction in the processing of food products has been underway for most of this year. Clothing sales already are down significantly from earlier peaks. While the consumer certainly will not re-establish strong gains in these sectors until the savings rate has been significantly raised, further sharp drops in consumer activity from current levels is not likely. Even so, consumer spending after inflation is expected to crawl along at only a 1% gain both this year and next year.

In fact, consumer savings may decline slightly in 1989 according to our forecasts. The reason for this decline is not apparent in any swelling of asset values. Our asset-outlay ratio continues falling modestly. Moreover, as inflation is expected to intensify late in 1988 and early 1989, some reductions in real consumer expenditures growth might be expected. Only a small further amount of consumer retrenchment would be needed to tilt the outlook into recession early in 1989.

Excluding construction products, capital spending should receive enough stimulus to continue advancing over the next two years. Manufacturing is not expected to retrench significantly. Some industries with substantial orders from abroad will need additional capacity over the next two years in order to meet both domestic and foreign markets. Thus, capital spending other than automobile product should expand nearly 5% after inflation in 1988. Some slowing to only a 2% gain is anticipated in 1989. However, a significant tilt from foreign suppliers of producers' goods to domestic suppliers will significantly enhance the earnings prospects of the domestic capital goods industry. Trucks, which showed surprising resilience in 1987, are expected to decline in 1988 and 1989. Auto fleet purchases by corporations and by rental car companies also are expected to decline slightly next year.

Although the outlook shows no recession, an actual manufacturing inventory overhang late in 1988 or early in 1989 could develop into just such a contraction. If a downturn does develop, however, sufficient strength in export markets should exist to forestall any significant economic decline.

The stuttering economy should significantly restrain inflationary pressures. Oil prices are expected to fall early in 1988 before rebounding later in the year. For all of 1988 oil prices are expected to average $17.66 per barrel delivered into the United States, slightly less than the year before. Oil prices are expected to rise to an average $20.84 in 1989. Grocery store prices are expected to show a similar pattern. After virtually no inflation early in 1988, food inflation should reappear at a 4% annual sprint through 1989. On the other hand, rising imported prices should be reflected in prices for clothing and the other durables and nondurable goods sectors.

Wage inflation should not be a significant contributor to the inflation process over the next two years. Wage costs are rising as a result of higher social security assessments. However, the hourly labor cost is only expected to rebound to 3.8% from an unusually low 2.9% gain experienced in 1987. A slight further upward tilt to a 4.1% gain is expected in 1989. After the economy slows, productivity gains will be more difficult to achieve. Even so, labor cost pressures by themselves probably will not generate inflation in excess of 4%.

However, inflation is expected to be growing more than 4% in late 1988 and in 1989. This will be the result of higher import prices and some increases in prices of raw industrial and agricultural materials later in 1988 and early in 1989. The consumer price index should only increase 3.7% in 1988, the same as in 1987. However, a spurt to a 4.8% price gain is anticipated in 1989.

A stuttering economy provides little direction for investment activities. Our own projections suggest that stock market values already have fallen sufficiently to discount this relatively weak economic performance. Of course, a more substantial economic downturn would require further downward adjustments

in equity values. At these levels, most investors probably will be able to receive the dividend yield on stock investments over the next two years. However, significant appreciation of equity values is not likely. More favorable investment opportunities probably exist in the bond market at the present time. However, even bond opportunities appear to be nearing full exploitation. Investors probably will receive capital gains on their bonds early in 1988 and then experience erosion in those capital values later in the year. In short, the investment climate is one that benefits traders rather than long-term investors at the present time.

Nevertheless, selectively chosen sectors that will benefit over the next two years could be rewarding. Domestic producers of capital goods will do well. Banks and utilities generally will flourish in this environment that requires no significant surge in interest rates. Export-oriented companies and pharmaceuticals also are favored in this type of outlook. On the other hand, most consumer-oriented companies probably will not perform well. Only those consumer companies with significant markets abroad will show any adequate returns.

In summary, the good news is that the bad news is not getting any worse. On the other hand, the economy is still working through necessary economic adjustments. For several quarters in the next two years, the economy will be flirting with recessionary behavior. Only a minor shift in inventory investment accumulations or in consumer spending could tilt the balance into recession.

Assumptions

Government assumptions are contained in tables 5 and 6. The Federal Reserve is expected to encourage monetary growth early in 1988 as signs of economic slowing abound. Reduced support for the economy is expected to be pursued later in the year and early in 1989 when concerns about inflation begin to surmount lingering concerns about an economic decline. However, economic weakness in 1989 should prevent inflation and interest rates from moving significantly upward. Growth in the monetary base should slow slightly from 8.9% in 1987 to 7.8% in 1988 and 7.0% in 1989. As interest rates are expected to rise later in the year, this reduced support for monetary expansion should begin being reflected in sharply slower growth rates in the money supply.

No significant budgetary initiatives are expected in 1988, but an attempt will be made to re-establish Gramm-Rudman deficit reductions in 1989. Because the economy will be weaker than expected even as interest rates will be trending upward slightly, deficits will substantially exceed Gramm-Rudman guidelines. For 1988, deficits currently are projected to exceed $180 billion. They then will drop to less than $170 billion in 1989. However, no further major tax initiatives are anticipated in the next two years. Some increase in excise taxes has been assumed in 1989. Corporate tax rates are not expected to change significantly from current levels. While individual tax rates already are programmed to drop sharply in 1988, no further declines are anticipated for 1989.

Some of the assumptions used in this forecast include the following:

a. Wage increases for federal employees should average 4% in January 1989 following the 2% gain plus step increases that occurred in 1988. No special compensation was assumed for the military.

b. The cost-of-living adjustments for government programs such as pensions and social security will be only 3.6% in January 1989 following a 4.2% gain in 1988.

c. Oil imports are expected to rise slightly more than 3% in 1988 before declining slightly in 1989. As production in the United States will fall both years and as consumption is expected to continue rising, this means that oil inventories will diminish in 1989. Oil prices are expected to fluctuate below $18 per barrel in 1988 before price increases cause oil to reach $22 per barrel by the end of 1989.

d. No significant trade restraint legislation was expected to be enacted.

e. The wage base for social security was assumbed to be $45,200 in 1988 and $47,100 in 1989. No changes in social security taxes was assumed in the forecast.

f. World trade is expected to grow 3% in 1988 and 4% in 1989.

CONCLUSION

A consumer retrenchment as a result of the stock market collapse has led to excessive inventories of housing and consumer products. Some consumer products are produced abroad. However, automobile inventory excesses will necessitate a decrease in economic activity early in 1988. Construction also is heading downward to adjust for inventory excesses.

Hopefully, the current inventory excesses will be eliminated from the marketplace before domestic manufacturers discover that they no longer need to aggressively accumulate their inventories. If this rotation in inventory adjustments occurs, the economy will experience two moderate bouts of economic weakness. One will arrive early in 1988 and should leave by the second half of that year. The second period of weakness will arrive in the middle quarters of 1989. A recession can be avoided if export demand remains strong and if consumer spending does not slacken dramatically in the forecast. These assumptions suggest that an economic downturn still can be avoided in the next two years.

Nevertheless, the relatively sluggish nature of economic activity should lead to significant restraint upon wage pressures. Also, interest rates periodically will be moving downward.

Economic sluggishness, unfortunately, will not be sufficient to prevent some increase in inflationary pressures later in 1988 and in 1989. This, in turn, will exert some upward pressures upon yields on long-term government bonds. Other long-term interest rates also will trend upward. At the same time, the prime rate is expected to fall modestly. Mortgages should remain

below 10% through 1988 while bank lending rates should gradually move downward to the 8% range.

Because the economy will not be moving vigorously upward and could still tilt into a recession with only minor adjustments in export or consumer spending activity, no dramatic gains in stock market values are anticipated. Much more selective strategies need to be followed in this period of choppy economic performance. Although the odds of a recession developing in the next two years are reasonably high, about one chance in three, this forecast suggests that such an outcome still can be avoided. However, the costs of avoiding a recession are to accept an extended period of relatively sluggish growth.

Table 1.

Georgia State University
College of Business Administration
Economic Forecasting Center
February 1988

U.S. Expenditures for 1987-III and 1987-IV with Forecasts for 1988-I through 1989-IV

		1987		1988				1989				Percent Change			Annual		
		III	IV	I	II	III	IV	I	II	III	IV	86-87	87-88	88-89	1987	1988	1989
1.	Personal Consumption Expenditures	3011.3	3015.1	3047.7	3087.3	3142.3	3174.6	3228.6	3271.7	3324.3	3378.5	5.9	5.0	6.0	2966.0	3113.0	3300.8
2.	Autos and Parts	215.2	195.8	196.7	198.4	208.4	200.7	205.1	201.2	202.8	207.7	-0.2	3.3	1.6	194.6	201.1	204.2
3.	Other Durable Goods	221.6	218.0	218.9	217.9	219.1	218.9	219.9	219.9	221.0	222.8	5.7	-0.3	1.0	219.4	218.7	220.9
4.	Nondurable Goods	986.4	983.4	986.4	995.6	1007.7	1017.0	1031.9	1044.5	1061.0	1077.9	4.4	2.2	5.2	980.5	1001.7	1053.8
5.	Services	1588.1	1618.0	1645.7	1675.4	1707.1	1738.0	1771.7	1806.1	1839.5	1870.1	7.8	7.6	7.7	1571.6	1691.6	1821.9
6.	Gross Private Domestic Investment	707.4	755.5	729.7	718.0	725.9	739.6	741.5	742.7	740.2	752.2	6.8	1.7	2.2	716.4	728.3	744.2
7.	Residential Struct.	227.9	233.1	230.0	232.7	239.3	247.1	253.9	252.1	249.0	250.6	4.7	3.8	6.0	228.5	237.3	251.4
8.	Other Structures	137.1	140.7	138.8	138.6	138.5	140.0	142.1	143.8	145.8	148.0	-2.4	3.7	4.3	134.0	139.0	144.9
9.	Producers' Durables	319.5	313.6	314.1	317.8	322.6	325.8	324.0	327.9	332.8	335.0	2.8	3.9	3.1	308.0	320.1	329.9
10.	Change in Inventories	22.9	68.1	46.8	28.9	25.5	26.7	21.5	18.9	12.6	18.6	---	---	---	45.7	32.0	17.9
11.	Net Export of Goods and Services	-123.7	-125.5	-119.1	-102.5	-103.0	-98.3	-93.9	-86.3	-88.8	-86.1	---	---	---	-120.0	-105.7	-88.8
12.	Exports	439.2	453.9	468.9	476.4	494.9	510.7	522.0	527.3	545.5	559.0	13.4	14.3	10.4	426.7	487.7	538.5
13.	Imports	562.9	579.4	588.0	578.9	597.9	609.0	615.9	613.6	634.3	645.1	13.5	8.6	5.7	546.7	593.5	627.2
14.	Government Purchases of Goods and Services	929.0	952.8	968.0	975.0	987.6	1004.4	1019.8	1023.5	1039.7	1058.4	6.2	6.5	5.2	923.8	983.8	1035.4
15.	Federal	382.1	393.7	401.8	400.9	404.8	413.4	419.9	414.8	421.9	430.7	3.9	6.5	4.1	380.6	405.2	421.8
16.	National Defense	299.0	300.0	307.7	310.9	313.5	316.2	322.1	325.2	327.1	329.4	6.3	5.7	4.4	295.3	312.1	326.0
17.	Other	83.0	93.7	94.1	90.0	91.3	97.2	97.8	89.6	94.8	101.3	-3.5	9.2	2.9	85.3	93.2	95.9
18.	State and Local	546.9	559.1	566.2	574.1	582.8	591.0	599.9	608.7	617.8	627.7	7.9	6.5	6.0	543.2	578.5	613.5
19.	Gross National Product	4524.0	4598.0	4626.3	4677.8	4752.8	4820.3	4896.0	4951.6	5015.4	5103.0	5.9	5.2	5.8	4486.2	4719.3	4991.6
20.	Amount of Change	78.9	74.0	28.3	51.5	75.0	67.5	75.7	55.6	63.8	87.6	---	---	---	251.2	233.1	272.3
21.	% Change*	7.0	6.7	2.5	4.5	6.6	5.8	6.4	4.6	5.3	7.2	---	---	---	5.9	5.2	5.8
22.	% Real Change*	4.3	4.2	-0.5	1.1	2.6	2.2	2.1	-0.2	0.7	3.5	---	---	---	2.9	2.0	1.6
23.	% Price Change*	2.8	2.7	2.9	3.5	4.0	3.4	4.3	4.8	4.5	3.5	---	---	---	3.0	3.1	4.1
24.	Implicit Price Deflator	117.9	118.7	119.5	120.5	121.7	122.7	124.0	125.5	126.9	128.0	3.0	3.1	4.1	117.5	121.1	126.1
25.	Change in Final Sales	96.3	28.8	49.6	69.4	78.4	66.3	80.9	58.2	70.1	81.6	---	---	---	---	---	---
26.	GNP in 1982 Dollars	3835.9	3875.1	3869.9	3880.8	3906.1	3927.7	3948.1	3946.5	3953.8	3988.2	2.9	2.0	1.6	3819.6	3896.1	3959.2

Table 2.

Georgia State University
College of Business Administration
Economic Forecasting Center
February 1988

U.S. Real Expenditures for 1987-III and 1987-IV with Forecasts for 1988-I through 1989-IV

	1987		1988				1989				Percent Change			Annual		
	III	IV	I	II	III	IV	I	II	III	IV	86-87	87-88	88-89	1987	1988	1989
1. Personal Consumption	2520.7	2496.6	2507.9	2515.9	2530.8	2525.8	2539.4	2539.9	2548.9	2562.1	1.8	1.0	1.1	2495.2	2520.1	2547.6
2. Durable Goods	406.9	384.4	385.0	383.6	391.1	382.6	385.2	379.6	379.7	383.4	1.2	-0.7	-0.9	388.2	385.6	382.0
3. Nondurable Goods	875.7	865.6	868.8	871.2	870.6	866.8	870.3	870.8	872.3	874.1	-0.2	-0.7	0.3	875.9	869.4	871.9
4. Services	1238.1	1246.6	1254.1	1261.1	1269.1	1276.4	1283.9	1289.5	1296.9	1304.6	3.5	2.8	2.3	1231.2	1265.2	1293.7
5. Gross Private Domestic Invest.	681.9	714.2	687.0	673.4	677.3	684.5	681.4	677.5	669.4	674.8	4.8	-0.7	-0.7	685.4	680.6	675.8
6. Residential Structures	193.5	196.3	192.3	193.1	196.0	199.6	202.5	198.7	193.5	191.9	-0.1	-0.5	0.7	196.2	195.3	196.7
7. Other Structures	127.2	129.2	126.3	125.1	124.0	124.2	125.0	125.3	125.7	126.2	-4.6	0.5	0.5	124.3	124.9	125.6
8. Producers' Durables	336.6	330.4	330.6	333.5	337.5	339.4	336.1	338.4	342.0	343.2	2.9	3.9	1.4	322.5	335.3	339.9
9. Change in Inventories	24.6	58.3	37.8	21.7	19.8	21.3	17.8	15.1	8.2	13.5	---	---	---	42.4	25.2	13.7
10. Net Export of Goods and Services	-138.4	-130.7	-118.1	-98.4	-95.1	-87.7	-78.7	-68.8	-67.9	-61.4	---	---	---	-134.3	-99.8	-69.2
11. Exports	437.1	453.8	468.1	473.1	487.1	497.3	503.4	503.1	514.6	522.4	12.8	13.1	6.1	425.8	481.4	510.9
12. Imports	575.6	584.5	586.2	571.5	582.2	585.0	582.1	571.9	582.5	583.8	7.1	3.8	-0.2	560.1	581.2	580.1
13. Gov't Purchases of Goods & Services	771.7	795.0	793.1	789.9	793.1	805.1	806.0	797.9	803.4	812.7	2.5	2.9	1.2	773.3	795.3	805.0
14. Federal	336.3	354.5	350.4	345.2	346.7	357.3	356.1	346.6	350.6	357.6	1.6	3.6	0.8	337.7	349.9	352.7
15. State & Local	435.4	440.5	442.7	444.7	446.4	447.8	449.9	451.3	452.8	455.1	3.2	2.3	1.5	435.6	445.4	452.3
16. Gross National Product	3835.9	3875.1	3869.9	3880.8	3906.1	3927.2	3948.1	3946.5	3953.8	3988.2	2.9	2.0	1.6	3819.6	3896.0	3959.2
17. Final Demand	3811.3	3816.8	3832.1	3859.1	3886.3	3905.9	3930.3	3931.4	3945.6	3974.7	2.1	2.5	1.9	3777.3	3870.9	3945.5
18. Private Domestic Product	3452.2	3491.9	3484.0	3495.0	3516.9	3538.3	3559.0	3558.3	3565.9	3600.6	3.3	2.2	1.8	3434.0	3508.6	3571.0

Table 3.

Georgia State University
College of Business Administration
Economic Forecasting Center
February 1988

Income Related U.S. GNP Components for 1987-III and 1987-IV with Forecasts for 1988-I through 1989-IV

		1987		1988				1989				Percent Change			Annual		
		III	IV	I	II	III	IV	I	II	III	IV	86-87	87-88	88-89	1987	1988	1989
1.	Compensation of Employees	2663.5	2713.4	2754.9	2781.1	2815.2	2845.4	2894.0	2927.1	2966.2	3009.0	5.7	5.7	5.4	2647.6	2799.2	2949.1
2.	Wage and Salary	2226.5	2269.9	2297.7	2319.7	2348.1	2373.8	2411.1	2438.3	2470.8	2507.1	5.9	5.5	5.2	2212.8	2334.8	2456.8
3.	Manufacturing	485.1	494.8	497.7	499.4	502.3	502.4	505.6	507.9	512.2	515.7	2.9	3.4	2.0	484.0	500.5	510.4
4.	Other Commodity-Producing Industries	156.7	160.3	160.6	161.5	163.8	166.8	170.0	170.8	171.1	172.8	2.9	3.8	4.9	157.2	163.2	171.2
5.	Distributive Industries	526.3	534.4	538.7	543.4	550.6	566.6	565.4	571.2	579.1	588.6	4.1	4.7	5.3	522.8	547.3	576.1
6.	Service Industries	633.9	649.3	660.3	670.1	681.5	694.1	707.7	720.9	735.9	753.2	9.3	7.8	7.8	627.3	676.5	729.4
7.	Military	73.4	74.2	76.7	77.8	77.8	78.2	80.4	81.1	81.2	81.3	4.1	5.9	4.4	73.3	77.6	81.0
8.	Civilian Government	351.1	356.8	363.7	367.5	372.1	375.7	382.0	386.4	391.3	395.5	7.3	6.2	5.2	348.1	369.8	388.8
9.	Supplements	437.0	443.5	457.2	461.4	467.1	471.6	482.9	488.8	495.4	501.9	4.6	6.8	6.0	434.8	464.3	492.3
10.	Proprietors' Income	322.7	344.6	333.8	337.2	338.2	352.7	353.5	356.1	350.4	361.7	13.2	3.9	4.4	327.8	340.5	355.4
11.	Business & Professional	282.1	288.7	288.5	290.9	294.7	298.9	303.1	305.2	306.7	311.1	10.5	5.1	4.5	279.1	293.3	306.5
12.	Farm	40.6	55.8	45.3	46.3	43.5	53.8	50.4	50.9	43.7	50.6	30.9	-3.1	3.5	48.8	47.2	48.9
13.	Rental Income	17.3	18.1	19.0	19.3	19.5	19.7	19.8	20.1	20.2	20.5	10.9	4.3	4.0	18.6	19.4	20.2
14.	Net Interest	340.6	351.5	350.4	347.3	350.9	355.7	361.2	367.3	371.0	376.8	3.2	4.3	5.1	336.7	351.1	369.1
15.	Corporate Profits Adj.	314.9	313.2	300.2	292.7	306.0	310.1	319.8	312.3	310.8	319.4	7.1	-0.8	4.4	304.7	302.3	315.6
16.	National Income	3659.0	3740.8	3758.3	3777.6	3829.8	3883.6	3948.3	3982.9	4018.6	4087.4	6.2	4.9	5.2	3635.4	3812.3	4009.3
17.	Indirect Business Tax	371.8	375.1	380.2	386.6	393.6	399.3	407.1	414.5	422.3	430.7	5.7	6.1	7.4	367.6	389.9	418.7
18.	Capital Consumption Adj.	-26.1	-27.9	-28.2	-27.4	-25.4	-22.7	-19.9	-16.7	-13.5	-10.7	---	---	---	-26.8	-25.9	-15.2
19.	Capital Consumption Alw.	509.1	516.1	522.8	529.6	536.9	544.3	552.0	560.6	568.9	577.9	6.0	5.4	5.9	506.2	533.4	564.9
20.	Business Transfers	23.3	23.6	23.9	24.1	24.4	24.7	25.1	25.4	25.8	26.2	4.0	4.6	5.6	23.2	24.3	25.6
21.	Net Govt. Subsidies	-2.3	-21.0	-14.6	-9.8	-5.3	-13.2	-10.1	-6.2	-1.1	-9.8	50.0	-18.3	-36.6	-13.1	-10.7	-6.8
22.	Statistical Discrepancy	-10.9	-8.7	-16.1	-2.9	-1.2	4.3	-6.5	-8.9	-5.6	1.3	---	---	---	-6.2	-4.0	-4.9
23.	Gross National Product	4524.0	4598.0	4626.3	4677.8	4752.8	4820.3	4896.0	4951.6	5015.4	5103.0	5.9	5.2	5.8	4486.2	4719.3	4991.6

Table 4.

Georgia State University
College of Business Administration
Economic Forecasting Center
February 1988

Derivation of U.S. Personal Income for 1987-III and 1987-IV with Forecasts for 1988-I through 1989-IV

	1987		1988				1989				Percent Change			Annual		
	III	IV	I	II	III	IV	I	II	III	IV	86-87	87-88	88-89	1987	1988	1989
1. National Income	3659.0	3740.8	3758.3	3777.6	3829.8	3883.6	3948.3	3982.3	4018.6	4087.4	6.2	4.9	5.2	3635.4	3812.3	4009.2
2. Less: Corp. Profits Adj.	314.9	313.2	300.2	292.7	306.0	310.1	319.8	312.3	310.8	319.4	7.1	-0.8	4.4	304.7	302.3	315.6
3. Social Insurance	396.6	403.6	422.0	424.9	429.8	433.2	447.1	451.5	457.2	463.0	5.4	8.4	6.4	394.5	427.5	454.7
4. Plus: Gov't Transfers	522.5	527.5	540.0	545.5	550.7	554.8	566.4	573.6	579.3	584.2	4.8	5.4	5.1	519.8	547.8	575.9
5. Old Age, Survivors, etc.	284.4	286.8	295.3	297.5	299.5	301.0	308.5	312.0	314.1	316.0	5.1	5.5	4.8	282.9	298.3	312.7
6. Unemployment Benefits	14.5	13.4	13.7	13.7	14.1	14.4	14.6	15.2	15.7	15.7	-11.0	-4.3	9.5	14.6	14.0	15.3
7. Veterans' Benefits	16.6	16.5	16.8	17.0	16.9	16.9	17.2	17.3	17.3	17.3	-0.9	1.8	2.2	16.6	16.9	17.3
8. Employees' Retirement	77.3	77.6	78.8	80.1	81.5	82.3	83.9	85.2	86.5	87.5	7.2	5.9	6.3	76.2	80.7	85.8
9. A.F.D.C.	16.8	16.7	16.9	17.1	17.1	17.0	17.2	17.4	17.4	17.5	2.6	2.1	2.1	16.7	17.0	17.4
10. Other	113.0	116.6	118.3	120.1	121.6	123.2	125.0	126.5	128.3	130.2	6.1	7.0	5.5	112.9	120.8	127.5
11. Business Transfers	23.3	23.6	23.9	24.1	24.4	24.7	25.1	25.4	25.8	26.2	4.0	4.6	5.6	23.2	24.3	25.6
12. Interest Transfers	179.4	185.7	189.0	190.8	190.8	190.8	191.6	194.6	196.5	198.8	2.9	6.3	2.6	179.2	190.4	195.4
13. Personal Dividends	88.7	90.5	92.1	93.6	95.0	96.5	98.1	99.7	101.2	102.9	7.8	7.8	6.5	87.5	94.3	100.5
14. Equals: Personal Income	3761.0	3851.5	3881.1	3914.0	3954.9	4007.1	4062.7	4112.3	4153.4	4217.1	6.0	5.2	5.0	3745.8	3939.3	4136.4
15. Less: Personal Tax Payments	565.7	578.9	553.7	556.1	570.9	583.6	582.0	588.5	601.3	614.9	10.2	0.2	5.4	564.7	566.1	596.7
16. Equals: Disposable Personal Income	3195.3	3272.6	3327.4	3357.9	3384.0	3423.5	3480.7	3523.8	3552.1	3602.2	5.3	6.0	4.9	3181.1	3373.2	3539.7
17. Less: Consumption	3011.3	3015.1	3047.7	3087.3	3142.3	3174.6	3228.6	3271.7	3324.3	3378.5	5.9	5.0	6.0	2966.0	3113.0	3300.8
18. Less: Other Outlays	95.1	97.0	98.0	98.9	99.7	100.9	101.5	102.2	103.0	104.0	3.6	4.7	3.3	94.9	99.4	102.7
19. Equals: Personal Savings	88.8	160.4	181.7	171.9	142.0	148.0	150.6	149.9	124.8	119.7	-7.9	33.9	-15.3	120.2	160.9	136.3
20. Savings Rate (%)	2.8	4.9	5.5	5.1	4.2	4.3	4.3	4.3	3.5	3.3	-13.2	26.5	-19.4	3.8	4.8	3.9

Table 5.

Georgia State University
College of Business Administration
Economic Forecasting Center
February 1988

U.S. Federal Government Activity for 1987-III and 1987-IV with Forecasts for 1988-I through 1989-IV

	1987		1988				1989				Percent Change			Annual		
	III	IV	I	II	III	IV	I	II	III	IV	86-87	87-88	88-89	1987	1988	1989
1. Government Receipts	923.0	939.0	922.5	925.2	949.6	963.7	979.9	988.6	1003.1	1024.6	10.7	2.6	6.3	916.1	940.3	999.1
2. Personal Tax & Non-Tax	404.3	413.8	386.6	387.4	399.8	409.1	405.7	409.5	419.5	432.1	11.2	-2.0	5.3	403.8	395.7	416.7
3. Corporate Profits Tax	114.5	114.0	105.4	103.5	110.4	110.5	116.3	115.4	113.8	116.2	31.2	-2.2	7.4	109.9	107.5	115.4
4. Indirect Business Tax	53.9	54.6	56.3	57.6	58.9	60.3	61.6	63.8	65.4	66.7	6.1	7.9	10.5	54.0	58.3	64.4
5. Contributions for Social Security	350.3	356.6	374.2	376.7	380.5	383.8	396.3	399.9	404.4	409.6	5.6	8.7	6.3	348.4	378.8	402.6
6. Government Expenditures	1058.8	1105.8	1115.9	1117.3	1118.9	1143.4	1153.8	1156.1	1163.6	1192.0	3.6	5.1	3.8	1069.1	1123.9	1166.4
7. Purchases of Goods and Services	382.1	393.7	401.8	400.9	404.8	413.4	419.9	414.8	421.9	430.7	3.9	6.5	4.1	380.6	405.2	421.8
8. Defense	299.0	300.0	307.7	310.9	313.5	316.2	322.1	325.2	327.1	329.4	6.3	5.7	4.4	295.3	312.1	326.0
9. Durables	93.4	89.6	92.4	92.7	93.8	94.2	94.9	95.3	95.5	95.6	7.3	3.6	2.2	90.1	93.3	95.3
10. Nondurables	11 0	11.4	11.3	11.5	11.7	11.8	12.2	12.4	12.7	13.0	-3.8	8.7	8.6	10.7	11.6	12.6
11. Military Compensation	73.4	74.2	76.7	77.8	77.8	78.2	80.4	81.1	81.2	81.3	4.1	5.9	4.4	73.3	77.6	81.0
12. Civilian Compensation	35.6	35.7	36.9	37.1	37.1	37.2	38.3	38.5	38.5	38.5	4.7	4.6	3.7	35.5	37.1	38.5
13. Other Services	77.9	81.2	83.0	84.2	85.5	87.1	88.5	89.9	91.3	93.2	8.9	8.4	6.8	78.4	85.0	90.7
14. Structures	7.8	7.9	7.4	7.6	7.6	7.7	7.8	8.0	7.9	7.8	12.1	2.0	4.0	7.4	7.6	7.9
15. Nondefense	83.0	93.7	94.1	90.0	91.3	97.2	97.8	89.6	94.8	101.3	-3.5	9.2	2.9	85.3	93.2	95.9
16. Durables	4.6	4.7	4.7	4.8	4.8	5.0	5.0	5.1	5.3	5.3	10.9	5.5	7.3	4.6	4.8	5.2
Nondurables	0.2	10.4	8.6	3.9	4.7	10.0	9.0	3.9	4.5	10.4	---	---	---	3.5	6.8	7.0
17. CCC Inventory Change	-6.1	4.1	2.4	-2.3	-1.6	3.5	2.4	-2.8	-2.4	3.3	---	---	---	-2.9	0.5	0.1
18. Other Nondurables	6.4	6.3	6.2	6.2	6.3	6.5	6.6	6.7	6.9	7.1	5.1	1.2	8.3	6.2	6.3	6.8
19. Compensation	41.7	41.9	43.3	43.7	43.7	43.7	44.8	45.2	45.3	45.4	4.9	4.9	3.6	41.6	43.6	45.2
20. Other Services	28.7	28.9	29.9	29.8	30.3	30.5	30.9	31.3	31.6	31.9	4.9	7.7	4.3	28.0	30.1	31.4
21. Structures	7.8	7.9	7.6	7.8	7.8	8.0	8.1	8.0	8.1	8.3	14.1	1.6	4.2	7.7	7.8	8.1
22. Transfer Payments	413.4	420.6	427.3	432.0	433.3	440.4	446.1	451.8	454.7	462.0	3.3	4.9	4.7	413.2	433.3	453.7
23. Grants-in-Aid to State and Local Governments	103.5	107.0	105.3	106.0	106.7	107.6	107.5	109.3	109.9	110.2	-2.0	1.6	2.7	104.7	106.4	109.2
24. Net Interest Paid	142.9	148.3	151.8	153.5	153.5	153.5	154.8	158.5	160.5	163.8	5.1	7.3	4.1	142.6	153.1	159.4
25. Deficit of Government Enterprises	17.2	35.9	29.7	21.9	16.6	28.5	25.5	21.7	16.6	25.3	20.3	-13.8	-7.9	28.1	24.2	22.3
26. Federal Surplus	-135.8	-166.8	-193.4	-192.1	-169.3	-179.7	-173.9	-167.5	-160.5	-167.4	---	---	---	-153.1	-183.6	-167.3
27. Federal Debt Held by Individuals	1704.7	1719.5	1760.4	1792.7	1829.5	1874.8	1911.0	1940.5	1978.5	2011.9	9.7	7.9	8.1	1680.8	1814.4	1960.5
28. Total Government Surplus	-89.3	-124.0	-156.1	-156.3	-131.9	-143.7	-136.7	-130.2	-123.9	-132.6	---	---	---	-107.9	-147.0	-130.9

Table 6.

Georgia State University
College of Business Administration
Economic Forecasting Center
February 1988

Selected Economic Variables of the U.S. Economy for 1987-III and 1987-IV with Forecasts for 1988-I through 1989-IV

	1987		1988				1989				Percent Change			Annual		
	III	IV	I	II	III	IV	I	II	III	IV	86-87	87-88	88-89	1987	1988	1989
Private Economy																
1. Change in Private Hourly Wage Costs	3.4	3.7	5.1	3.0	3.7	3.6	5.0	4.2	4.4	4.0	2.9	3.8	4.1	13.93	14.47	15.06
2. Change in Output Per Worker Hour	2.2	0.5	-1.6	0.7	0.9	1.6	0.4	-0.5	-0.5	1.8	0.8	0.3	0.5	22.005	22.082	22.196
3. Change in Implicit Unit Labor Costs	1.1	3.2	6.8	2.4	2.7	1.9	4.5	4.7	4.9	2.2	2.1	3.5	3.6	0.633	0.655	0.679
4. Change in Private Price Deflator	2.7	2.2	2.6	3.1	4.2	3.4	4.1	5.0	4.6	3.6	2.7	2.9	4.1	1.161	1.195	1.244
Prices																
5. Consumer Price Index	342.6	345.6	347.5	350.8	355.1	358.8	362.7	367.8	372.7	376.4	3.7	3.7	4.8	340.4	353.1	369.9
6. Industrial Commod. (Producer Price Index)	323.2	325.2	326.0	329.3	333.6	336.6	342.0	347.0	351.4	354.3	2.7	3.3	5.2	320.7	331.4	348.7
Corporate Economy																
7. After Tax Profit	141.9	143.2	133.6	132.0	141.1	142.1	149.3	148.5	146.3	147.3	8.1	0.0	7.8	137.2	137.2	147.9
8. Inventory Profits	-17.6	-20.7	-13.4	-16.7	-20.3	-16.1	-20.1	-24.3	-20.2	-14.7	---	----	---	-17.4	-16.6	-19.8
9. Genuine Profits	171.9	171.0	169.0	163.6	168.3	172.3	174.3	167.8	168.6	174.2	-6.4	0.3	1.7	167.9	168.3	171.2
10. Mean Closing Dow Jones	2569.2	2021.0	1993.5	1976.8	2098.7	2053.5	1989.7	1896.6	1937.2	2048.7	26.9	-10.8	-3.1	2275.7	2030.6	1968.1
11. Mean Closing NY Composite	178.95	142.96	140.56	139.59	143.51	140.12	136.29	131.48	134.85	138.83	18.8	-12.8	-4.0	161.7	140.9	135.4
Financial																
12. Monetary Base	261.9	266.8	273.5	278.7	283.7	288.5	293.3	297.8	303.0	308.5	8.9	7.8	7.0	260.8	281.1	300.7
13. Checkable Deposits	556.7	558.7	562.5	572.6	585.2	591.9	600.7	613.0	621.2	630.8	12.3	3.8	6.6	556.7	578.1	616.4
14. M1	750.0	756.8	765.4	779.2	795.8	805.8	818.3	834.1	846.0	859.5	11.2	5.0	6.7	748.8	786.6	839.5
15. Velocity of M1	6.001	6.047	6.013	5.971	5.939	5.948	5.951	5.907	5.900	5.911	-4.7	0.2	-0.9	5.956	5.968	5.917
16. M2	2862.2	2894.0	2930.6	2977.8	3028.6	3075.9	3126.2	3178.8	3228.5	3282.0	6.5	5.2	6.7	2855.3	3003.2	3203.9
17. Velocity of M2	1.572	1.581	1.570	1.563	1.561	1.558	1.558	1.550	1.546	1.548	-0.3	0.1	-0.8	1.562	1.563	1.550
18. Federal Funds	6.84	6.92	6.63	6.31	6.38	6.59	6.78	6.37	6.26	6.39	-2.2	-2.7	-0.4	6.66	6.48	6.45
19. Prime Rate	8.40	8.87	8.56	8.25	8.25	8.25	8.25	8.07	8.00	8.00	-1.6	1.5	-3.0	8.20	8.33	8.08
20. 6 Month T-Bills	6.18	6.41	6.09	5.96	6.05	6.17	6.15	6.02	5.89	5.98	0.0	0.6	-0.9	6.03	6.07	6.01
21. Seasoned AAA Corp.	9.76	10.21	9.88	9.43	9.29	9.56	9.83	9.76	9.79	10.05	3.9	1.8	3.3	9.38	9.54	9.86
22. FHA Mortgage Rates	10.50	10.85	9.94	9.86	9.97	10.23	10.45	10.31	10.26	10.49	0.3	-2.0	3.8	10.21	10.00	10.38
Miscellaneous																
23. Housing Starts	1623	1517	1465	1529	1533	1576	1566	1502	1475	1466	-10.0	-6.8	-1.5	1636	1526	1502
24. Single Family Starts	1155	1079	1036	1083	1092	1123	1106	1029	996	978	-2.5	-6.4	-5.2	1158	1084	1027
25. Unit Auto Sales	11.00	10.03	10.05	9.93	10.56	9.85	10.06	9.56	9.45	9.67	-12.6	-0.6	4.1	10.16	10.10	9.69
26. Civilian Employment	112.860	113.486	114.018	114.470	114.899	115.274	115.752	116.031	116.445	116.995	2.6	2.0	1.4	112.445	114.665	116.306
27. Unemployment Rate	6.0	5.9	5.8	5.8	5.9	5.9	5.9	6.0	6.1	6.1	-11.4	-5.5	3.0	6.2	5.9	6.0
28. Industrial Production	130.9	133.0	132.7	132.4	133.6	134.2	135.4	134.3	133.6	135.3	3.7	2.7	1.1	129.8	133.2	134.7
29. Asset-Consumption Ratio	4.107	3.985	3.973	3.961	3.953	3.927	3.875	3.837	3.832	3.823	-1.1	-3.7	-2.8	4.105	3.953	3.842

Table 7.

Georgia State University
College of Business Administration
Economic Forecasting Center
February 1988

U. S. Foreign Trade Accounts for 1986 with Forecasts for 1987 through 1989

	1986	1987	1988	1989	Percent Change 86-87	87-88	88-89
Exports of U.S. Merchandise	216629	250840	291043	322400	15.8	16.0	10.8
Food & Live Animals	17303	19121	21638	23535	10.5	13.2	8.8
Beverages & Tobacco	2920	3594	3915	4273	23.1	8.9	9.1
Crude Materials	17324	20205	24830	27455	12.1	11.6	10.2
Mineral Fuels	8115	7541	7525	8443	-7.1	-0.2	12.2
Animal & Vegetable Oils	1015	965	1358	1430	-4.9	40.6	5.3
Chemicals	22766	26180	29435	33700	15.0	12.4	14.5
Manufactured Goods	14005	17047	20308	24040	21.7	19.1	18.4
Machinery, Trans. Equipment	95290	108160	123503	136335	13.5	14.2	10.4
Miscellaneous Manufacturing	16654	19374	23718	25123	16.3	22.4	5.9
Commodities, n.e.c.	10986	19756	23673	25993	79.8	19.8	9.8
Foreign Merchandise	10928	8962	11143	12075	-18.0	24.3	8.4
Imports of Merchandise	382964	425279	451322	469157	11.0	6.1	4.0
Food & Live Animals	22395	22307	23415	23988	-0.4	5.0	2.4
Beverages & Tobacco	4226	4573	5018	5230	8.2	9.7	4.2
Crude Materials	11176	12278	12368	13285	9.9	0.7	7.4
Mineral Fuels	39838	47205	47542	54704	18.5	0.7	7.4
Animal & Vegetable Oils	581	643	745	783	10.7	15.9	5.0
Chemicals	15812	16858	17978	20203	6.6	6.6	12.4
Manufactured Goods	51700	56520	60095	61585	9.3	6.3	2.5
Machinery, Trans. Equipment	166240	182687	198063	199163	9.9	8.4	0.6
Miscellaneous Manufacturing	60079	69518	73045	76348	15.7	5.1	4.5
Commodities, n.e.c.	15042	12679	13055	13870	-15.7	3.0	6.2
Foreign Transactions							
Total Exports	376.2	426.7	487.7	538.5	13.4	14.3	10.4
Merchandise Exports	224.9	257.6	301.0	332.2	14.5	16.9	10.4
Factor Income	86.1	93.2	107.5	117.6	8.2	15.4	9.4
Other Services	65.2	75.9	79.2	88.7	16.4	4.3	11.9
Total Imports	481.7	546.7	593.5	627.2	13.5	8.6	5.7
Merchandise Imports	367.5	410.6	439.8	457.9	11.7	7.1	4.1
Factor Income	52.4	67.2	81.8	93.2	28.4	21.6	14.0
Other Services	61.9	68.8	71.9	76.2	11.2	4.5	5.9
Transfer	15.7	12.8	13.3	13.5	-18.6	3.9	1.1
Government Interest	22.6	24.0	25.2	29.1	6.3	4.7	15.5
Net Foreign Investment	-143.9	-156.8	-144.2	-131.3	---	---	---
Trade Weighted Value of Dollar (3/73=100)	112.3	97.0	89.1	92.4	-13.6	-8.1	3.7

Table 8. Economic Forecasting Center February 1988

Implicit Price Deflators for Personal Consumption Expenditures for 1987-III and 1987-IV with Forecasts for 1988-I through 1989-IV

	1987		1988				1989				Percent Change			Annual		
	III	IV	I	II	III	IV	I	II	III	IV	86-87	87-88	88-89	1987	1988	1989
Durable Goods	107.3	107.6	107.9	108.5	109.3	109.7	110.3	110.9	111.6	112.3	1.6	2.1	2.2	106.6	108.9	111.3
% Change	4.7	1.1	1.1	2.2	2.9	1.3	2.4	2.2	2.5	2.4						
Automobiles	115.3	116.1	116.7	117.3	118.4	119.2	120.0	121.2	122.3	123.1	3.2	3.0	3.2	114.4	117.9	121.7
% Change	5.0	2.8	2.0	2.1	3.7	2.6	2.8	4.0	3.7	2.6						
Furniture	96.0	95.8	95.9	95.8	95.7	95.6	95.6	95.5	95.6	95.7	-0.7	-0.2	-0.2	96.0	95.8	95.6
% Change	1.0	-0.5	0.2	-0.4	-0.5	-0.4	-0.0	-0.3	0.3	0.4						
Other Durables	111.3	113.3	114.6	115.2	116.3	117.6	119.0	120.3	121.4	122.7	3.7	4.4	4.2	111.1	115.9	120.8
% Change	2.9	7.1	4.8	2.0	4.1	4.5	4.7	4.6	3.6	4.5						
Nondurables	112.6	113.6	113.5	114.3	115.7	117.3	118.6	119.9	121.6	123.3	4.5	2.9	4.9	111.9	115.2	120.9
% Change	3.3	3.5	-0.3	2.6	5.2	5.6	4.3	4.7	5.7	5.7						
Food	117.6	118.4	119.0	120.0	121.2	122.5	123.6	124.8	126.2	127.5	4.5	3.2	4.0	116.9	120.7	125.5
% Change	3.4	2.9	1.9	3.4	4.1	4.4	3.7	3.9	4.5	4.2						
Apparel	110.5	113.2	113.9	115.5	117.3	119.4	120.3	121.7	122.2	124.1	4.7	5.0	4.8	111.0	116.5	122.1
% Change	-4.4	10.2	2.6	5.6	6.4	7.2	3.1	4.7	1.7	6.3						
Gasoline & Oil	82.0	80.9	76.3	74.1	75.2	77.2	79.2	81.4	85.0	88.0	5.6	-4.7	10.2	79.4	75.7	83.4
% Change	16.2	-5.1	-20.9	-11.2	6.4	11.2	10.6	11.3	19.1	14.9						
Fuel Oil	76.5	75.5	72.3	69.4	71.2	73.2	75.2	76.8	81.0	84.5	0.2	-4.8	11.0	75.1	71.5	79.4
% Change	6.7	-5.2	-15.6	-15.0	10.2	12.3	11.3	8.7	23.7	18.4						
Other Nondurables	125.6	126.9	128.2	129.6	131.1	132.5	133.9	135.4	136.9	138.4	4.3	4.4	4.5	124.9	130.3	136.1
% Change	5.0	4.2	3.9	4.7	4.6	4.3	4.4	4.4	4.7	4.3						
Services	128.3	129.8	131.2	132.9	134.5	136.2	138.0	140.1	141.8	143.3	4.2	4.7	5.3	127.6	133.7	140.8
% Change	4.3	4.8	4.5	5.1	5.1	5.0	5.5	6.1	5.2	4.3						
Housing	131.4	133.5	135.4	137.3	139.3	141.4	143.5	145.7	148.0	150.3	4.8	5.8	6.2	130.8	138.3	146.9
% Change	5.1	6.6	5.9	5.7	6.0	6.2	6.0	6.3	6.5	6.4						
Electricity & Gas	112.8	112.1	112.7	113.8	114.3	113.7	114.8	115.5	116.7	118.3	-1.5	1.1	2.4	112.4	113.6	116.3
% Change	0.1	-2.3	2.1	3.7	1.8	-1.9	3.8	2.4	4.4	5.5						
Household Operations	125.6	125.6	125.1	125.8	127.5	128.4	129.4	134.1	131.8	133.0	2.3	1.5	4.2	124.9	126.7	132.1
% Change	3.2	0.2	-1.6	2.3	5.5	2.9	3.2	15.2	-6.6	3.7						
Transportation	120.0	122.3	124.4	126.0	127.8	129.8	132.0	134.1	136.4	138.6	6.1	6.2	6.5	119.6	127.0	135.3
% Change	5.0	8.0	7.0	5.2	5.8	6.3	7.1	6.6	6.8	6.7						
Medical Care	134.0	135.9	137.7	139.6	141.6	143.7	146.0	148.4	150.8	150.8	5.0	5.5	5.9	133.3	140.6	149.0
% Change	5.1	5.7	5.4	5.7	5.8	6.0	6.6	6.7	6.6	0.2						
Other Services	127.0	128.3	129.4	130.8	132.1	133.6	134.9	136.3	137.9	139.5	4.1	4.1	4.3	126.3	131.5	137.1
% Change	4.0	4.1	3.5	4.4	4.0	4.7	3.9	4.2	4.8	4.7						
Personal Consump Exp	119.5	120.8	121.5	122.7	124.2	125.7	127.1	128.8	130.4	131.9	4.1	3.9	4.9	118.9	123.5	129.6
% Change	4.1	4.4	2.3	4.0	5.0	4.9	4.5	5.5	5.1	4.7						
Consumer Price Index	342.6	345.6	347.5	350.8	355.1	358.8	362.7	367.8	372.7	376.4	3.7	3.7	4.8	340.4	353.1	369.9
% Change	4.6	3.5	2.2	3.9	5.0	4.2	4.4	5.7	5.4	4.0						

Table 9.

Georgia State University
College of Business Administration
Economic Forecasting Center
February 1988

Implicit Price Deflators with Annual Percentage Changes for 1987-III and 1987-IV with Forecasts for 1988-I through 1989-IV

	1987		1988				1989				Percent Change			Annual		
	III	IV	I	II	III	IV	I	II	III	IV	86-87	87-88	88-89	1987	1988	1989
GNP Deflator	117.9	118.7	119.5	120.5	121.7	122.7	124.0	125.5	126.9	128.0	3.0	3.1	4.1	117.5	121.1	126.1
% Change	2.8	2.7	2.7	3.4	4.0	3.3	4.3	4.9	4.5	3.5						
Personal Cons. Exp.	119.5	120.8	121.5	122.7	124.2	125.7	127.1	128.8	130.4	131.9	4.1	3.9	4.9	118.9	123.5	129.6
% Change	4.1	4.4	2.3	4.0	5.0	4.9	4.5	5.5	5.1	4.7						
Private Domestic Investment	104.7	105.8	106.2	106.6	107.2	108.0	108.8	109.6	110.6	111.5	2.1	2.2	2.9	104.7	107.0	110.1
% Change	1.5	4.3	1.6	1.5	2.1	3.3	2.9	3.0	3.5	3.3						
Structures	107.8	108.9	109.9	110.8	111.7	112.7	113.7	114.8	116.0	117.3	2.2	3.2	3.8	107.9	111.3	115.5
% Change	0.0	4.1	3.7	3.3	3.3	3.6	3.6	3.9	4.2	4.6						
Producers' Durables	94.9	94.9	95.0	95.3	95.6	96.0	96.4	96.9	97.3	97.6	0.0	-0.1	1.6	95.5	95.5	97.1
% Change	-4.5	0.0	0.4	1.3	1.3	1.7	1.7	2.1	1.7	1.2						
Residential Structures	117.8	118.7	119.6	120.5	122.1	123.8	125.4	126.9	128.7	130.6	4.8	4.3	5.3	116.5	121.5	127.9
% Change	7.5	3.1	3.1	3.0	5.4	5.7	5.3	4.9	5.8	6.0						
Exports	100.5	100.0	100.2	100.7	101.6	102.7	103.7	104.8	106.0	107.0	0.5	1.1	4.0	100.2	101.3	105.4
% Change	0.0	-2.0	0.8	2.0	3.6	4.4	4.0	4.3	4.7	3.8						
Imports	97.8	99.1	100.3	101.3	102.7	104.1	105.8	107.3	108.9	110.5	5.9	4.7	5.9	97.6	102.1	108.1
%Change	0.4	5.4	4.9	4.0	5.6	5.6	6.7	5.8	6.1	6.0						
Federal	113.6	111.1	114.7	116.1	116.8	115.7	117.9	119.7	120.3	120.4	2.3	2.8	3.2	112.7	115.8	119.6
% Change	-1.7	-8.5	13.6	5.0	2.4	-3.7	7.8	6.2	2.0	0.3						
Federal Purchases	108.5	104.5	107.8	109.2	110.2	108.7	110.2	112.0	113.1	113.4	1.3	1.5	2.9	107.3	109.0	112.2
% Change	-2.9	-14.0	13.2	5.3	3.7	-5.3	5.6	6.7	4.0	1.1						
Federal Value Added	122.5	123.4	127.4	128.7	128.7	129.0	132.5	133.5	133.7	133.7	4.3	5.0	3.8	122.4	128.5	133.4
% Change	0.7	3.0	13.6	4.1	0.0	0.9	11.3	3.1	0.6	0.0						
State & Local	125.6	126.9	127.9	129.1	130.6	132.0	133.3	134.9	136.4	137.9	4.5	4.2	4.4	124.7	129.9	135.6
% Change	5.9	4.2	3.2	3.8	4.7	4.4	4.0	4.9	4.5	4.5						
State & Local Purchases	113.7	114.3	115.0	116.0	117.4	118.7	120.0	121.4	122.9	124.3	2.6	3.4	4.6	113.0	116.8	122.2
% Change	5.1	2.1	2.5	3.5	4.9	4.5	4.5	4.7	5.0	4.6						
State & Local Value Added	135.2	137.3	138.6	139.9	141.6	143.0	144.5	146.1	147.8	149.5	6.1	4.9	4.4	134.3	140.8	147.0
% Change	6.1	6.4	3.8	3.8	4.9	4.0	4.3	4.5	4.7	4.7						

Table 10.

Georgia State University
College of Business Administration
Economic Forecasting Center
February 1988

Consumption Details for 1987-III and 1987-IV with Forecasts for 1988-I through 1989-IV

	1987		1988				1989				Percent Change			Annual		
	III	IV	I	II	III	IV	I	II	III	IV	86-87	87-88	88-89	1987	1988	1989
CURRENT DOLLARS																
Durable Goods	436.8	413.8	415.6	416.3	427.5	419.6	425.0	421.1	423.8	430.5	2.9	1.4	1.3	413.9	419.8	425.1
Motor Vehicles & Parts	215.2	195.8	196.7	198.4	208.4	200.7	205.1	201.2	202.8	207.7	-0.2	3.3	1.6	194.6	201.1	204.2
Furniture	147.9	145.4	145.1	144.2	144.3	143.5	143.4	142.9	143.2	143.9	4.6	-1.4	-0.6	146.3	144.3	143.4
Other	73.7	72.6	73.8	73.7	74.8	75.4	76.5	77.0	77.8	78.9	8.1	1.8	4.2	73.1	74.4	77.6
Nondurable Goods	986.4	983.4	986.4	995.6	1007.0	1017.0	1031.9	1044.5	1061.0	1077.9	4.4	2.2	5.2	980.5	1001.7	1053.8
Food	514.0	514.1	516.7	522.2	528.3	533.1	539.3	545.5	552.7	559.6	3.3	2.1	4.6	514.5	525.1	549.3
Clothing & Shoes	178.7	177.3	178.2	181.7	184.2	186.0	188.4	189.6	192.0	195.2	5.3	3.4	4.8	176.5	182.5	191.3
Gas & Oil	82.7	80.5	77.3	75.4	75.9	76.7	78.9	81.2	84.4	87.3	6.1	-4.5	8.7	79.9	76.3	83.0
Fuel Oil & Coal	15.6	16.3	16.2	15.0	14.8	15.6	16.4	16.9	17.5	18.0	-0.9	-2.8	11.7	15.9	15.4	17.2
Other	195.5	195.1	198.0	201.3	204.5	205.6	208.9	211.3	214.4	217.8	6.0	4.4	5.3	193.8	202.4	213.1
Services	1588.1	1618.0	1645.7	1675.4	1707.1	1738.0	1771.7	1806.1	1839.5	1870.1	7.8	7.6	7.7	1571.6	1691.6	1821.9
Housing	472.9	483.5	493.4	503.3	513.7	524.6	535.5	546.9	558.8	571.0	7.4	8.4	8.7	469.2	508.8	533.1
Household Operations Gas & Electric	90.0	88.7	90.3	90.9	92.0	91.9	93.0	93.9	94.8	96.2	-0.3	4.5	3.5	87.3	91.3	94.5
Household Operations Other	96.3	97.6	97.9	99.3	101.1	102.2	103.4	107.4	105.7	106.8	4.4	5.5	5.7	94.9	100.1	105.8
Transportation	106.3	109.6	111.6	113.4	115.4	117.3	119.6	121.4	123.7	126.0	8.4	8.5	7.2	105.4	114.4	122.7
Medical Care	355.4	363.1	370.5	378.9	387.7	397.0	406.9	416.8	427.0	431.4	9.8	9.3	9.6	351.0	383.5	420.5
Other	467.2	475.6	482.0	489.6	497.2	505.5	513.3	519.7	529.5	538.7	8.5	6.4	6.4	463.9	493.6	525.3
CONSTANT DOLLARS																
Durable Goods	406.9	384.4	385.0	383.6	391.1	382.6	385.2	379.6	379.7	383.4	1.2	-0.7	-0.9	388.2	385.6	382.0
Motor Vehicles & Parts	186.6	168.6	169.3	169.1	176.0	168.4	170.9	166.0	165.8	168.7	-3.3	0.5	-1.7	169.9	170.7	167.9
Furniture	154.1	151.7	151.3	150.5	150.8	150.1	150.0	149.6	149.8	150.4	5.3	-1.2	-0.5	152.5	150.7	150.0
Other	66.2	64.1	64.4	64.0	64.3	64.1	64.3	64.0	64.1	64.3	4.3	-0.8	-1.7	65.8	65.3	64.2
Nondurable Goods	875.7	865.6	868.8	871.2	870.6	866.8	870.3	870.8	872.3	874.1	-0.2	-0.7	0.3	875.9	869.4	871.9
Food	437.1	434.1	434.2	435.2	435.9	435.2	436.3	437.1	438.0	438.9	-1.1	-1.1	0.6	440.1	435.1	437.6
Clothing & Shoes	161.7	156.6	156.4	157.3	157.0	155.8	156.6	155.8	157.1	157.3	0.6	-1.5	0.0	159.0	156.6	156.7
Gas & Oil	100.9	99.5	101.3	101.8	100.9	99.3	99.6	99.8	99.3	99.2	0.3	0.2	-1.3	100.6	100.8	99.5
Fuel Oil & Coal	20.4	21.6	22.4	21.6	20.8	21.3	21.8	22.0	21.6	21.3	-1.6	2.0	0.7	21.1	21.5	21.7
Other	155.6	153.7	154.5	155.3	156.0	155.2	156.0	156.1	156.6	157.4	1.7	0.1	0.8	155.2	155.3	156.5
Services	1238.1	1246.6	1254.1	1261.1	1269.1	1276.4	1283.9	1289.5	1296.9	1304.6	3.5	2.8	2.3	1231.2	1265.2	1293.7
Housing	360.0	362.2	364.4	366.6	368.8	371.0	373.2	375.4	377.6	379.9	2.5	2.5	2.4	358.8	367.7	376.5
Household Operations Gas & Electric	79.8	79.1	80.1	79.9	80.5	80.8	81.0	81.3	81.2	81.3	1.1	3.4	1.1	77.7	80.3	81.2
Household Operations Other	76.7	77.7	78.3	78.9	79.3	79.6	79.9	80.1	80.2	80.3	2.0	4.0	1.4	75.8	77.4	78.0
Transportation	88.6	89.6	89.7	90.0	90.3	90.4	90.6	90.5	90.7	90.9	4.4	2.2	0.6	88.2	90.1	90.7
Medical Care	265.2	267.2	269.1	271.4	273.8	276.3	278.7	280.9	283.2	286.0	4.5	3.6	3.5	263.3	272.7	282.2
Other	367.8	370.7	372.5	374.3	376.4	378.3	380.5	381.3	384.0	386.2	4.2	2.2	2.0	367.3	375.4	383.0

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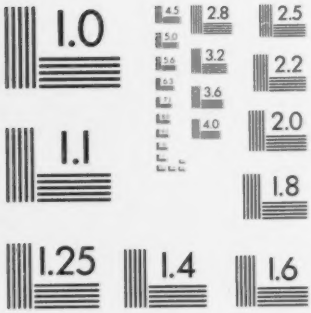

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Forecast of the Nation 1988 II-1990 I

ECONOMIC FORECASTING CENTER

Georgia State University
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May 1988
Dr. Donald Ratajczak, Director

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ECONOMIC FORECASTING CENTER

Dr. Donald Ratajczak, Director

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AN OVERHEATING ECONOMY TO BE COOLED IN 1989

Dr. Donald Ratajczak
Director
Economic Forecasting Center

SUMMARY

Although consumers retrenched briefly after the stock market crash, they were enticed by incentives to return to the market place in the first quarter. A combination of rising sales and reduced production removed excess inventories from the automobile industry. While production was being restrained to remove excess inventories, consumer strength did not interfere with continuing growth in export activity. Now that inventories have adjusted, consumer strength is colliding with industrial expansion at a late stage of the business cycle. Pockets of industrial overheating are beginning to surface in the textiles, chemicals, metals, and paper industries. Unemployment along the Eastern Seaboard has fallen below 4% in many states. More ominously, wage inflation has been spotted in an increase in wage compensation from previous year levels during the first quarter and in a 0.5% increase in the hourly earnings index in April.

Of course, consumer spending will begin slowing in inflation adjusted terms if prices begin rising faster than wages. Such conditions may surface in the second half of 1988. Also, any reductions in export opportunities could ease friction created by the collision between domestic consumption and industrial expansion, but improving trade conditions are required to diminish our dependence upon foreign investors. Moreover, the dollar is expected to decline further in value against major currencies, possibly reaching 110 yen and 1.55 German marks before the end of the forecast period. These further dollar declines will continue to encourage industrial expansion.

Federal Reserve policy probably will continue to encourage stability of interest rates in this election year. Increased inflationary pressures should lead to some upward drift in short-term interest rates but not enough to reduce the collision between domestic consumption and industrial expansion until more aggressive Federal Reserve restraint surfaces after November. Inflation as measured by the CPI should increase 4.2% in 1988 and 4.9% in 1989. Hoever, inflation will be increasing more than 5% early in 1989 before Federal Reserve restraint begins to be effective. Inflation adjusted economic activity should rise 3.0% this year before slowing to a meagre 1.3% gain next year. While several quarters of minimal growth currently are expected, an official recession still should be avoided.

Stock market values are expected to trend downward until early 1989, when the risks of recession reach their zenith. A new bull market probably will begin before the end of next year. After rising to 9.25% early in 1989,

the prime rate once again should fall later that year, but no significant movements in interest rates from current levels are expected over the forecast period. Long-term interest should rise until slow growth reappears in the second half of 1989, but long-term government bonds are not expected to yield more than 10% at their peak and should be falling below 9% again before the end of 1989.

OUTLOOK

Consumer savings is expected to remain unusually low through the next two years, causing greater growth in consumer spending than was expected following the stock market crash. Moreover, the savings rate is low for the current market value of assets held by households. Because of the stock market crash, household assets have fallen below 4 times outlays, a level that normally requires increased savings. However, the consumer already has reduced the growth of many expenditures below long-term trend rates of growth. Food and clothing sales have been weak for two years. Automobile sales are barely above replacement needs. Only furniture appears to be vulnerable to a considerable reduction in the next few years, but strong housing sales have prevented any meaningful correction from developing there. Some services may be susceptible to more expenditures slowing. Certainly, the financial services contained in other services have slowed sharply since the stock market correction. Also, housing services continue to grow along long-term trends. Even medical and transportation services should slow from their more than 4% inflation adjusted rates of growth. Yet, any significant consumer retrenchment from current subdued levels of activity should not be great.

Although inventories only slowed slightly from fourth quarter levels during the first quarter, the GNP statistics are misleading. Nonfarm inventories declined by more the $20 billion. The excess automobile inventories were eliminated. Indeed, producers are now considering production expansions to ensure adequate inventories for the remainder of this model year. Manufacturing inventory accumulations have slowed, but some of this may be the result of unexpectedly strong durable goods orders in the fall resulting in strong shipments during the winter and early spring. An increase in delivery delays and continued price pressures for industrial materials suggest inadequate inventories rather than desired restraint. Only the wholesalers appear to be carrying excessive inventories at the present time, and they may be encouraged to do so because of price increases. Thus, inventories appear to be desired rather than excessive.

Unfortunately, the GNP accounts are not showing the true inventory picture because crops that are not added to the government loan program are counted as inventories, while those crops in the program are considered government purchases when they enter. Many farmers, encouraged by firming prices, decided to hold their crops. As a result, government expenditures fell sharply while farm inventories increased sharply. By lowering final sales and raising inventories, this accounting procedure suggested that inventories were not adjusted in the first quarter. However, excluding changes in the Commodity Credit Corporation, real final sales grew almost 5% in the winter. Such an

expansion of sales certainly requires the additional nonfarm inventories that were accumulated.

Of course, a 32% increase in inflation adjusted purchases of plant and equipment during the first quarter should not continue. However, capacity constraints will continue to encourage expansion in select industries. Double-digit gains in producers' durables are likely this year before some slowing in the acquisition of automobiles and trucks slows expansion to less than 2% in 1989.

Housing has a continuing weak link in the apartment market while single family activity will increase early in 1988 as purchasers try to finalize their sales before expected mortgage rate increases become reality. This shifting forward of activity will slow the single family market late in 1988 and keep housing weak until the middle of 1989. Apartments are still being restrained by the absence of profitability following the removal of tax incentives after 1986. High vacancy rates have prevented managers from restoring investment returns through rent increases. Until reduced construction allows a significant reduction in vacancy rates, apartment investments will remain unattractive. Vacancies peaked last summer, but are expected to remain too high until the latter part of 1989. In the meantime, the rental component of housing service prices should continue to accelerate.

Another year of nearly 13% gains in real exports should develop in 1988 before a slowing in world growth and slower improvement in American competitiveness as a result of rising costs domestically should slow export expansion to less than 7% in 1989. Imports should continue to expand despite their increased costs as oil and some specialty machinery will be required to fuel domestic growth and expansion. Nevertheless, import substitution and reduced domestic growth should restrain import gains to less than 1% in 1989. As a result, inflation adjusted trade deficits will continue to improve dramatically.

Improvement in the current account deficit will be much slower. First, rising investments by foreigners will cause factor incomes earned by foreigners to grow much more sharply than earnings on our foreign investments. Second, rising interest rates into 1989 will increase the transfer of government interest to foreign investors. Third, the dollar should continue to fall, by 8% in 1988 and a further 5% in 1989. As a result, the terms of trade will continue to favor importers. This means that more of our purchasing power will be needed to purchase a unit of foreign goods than the purchasing power foreign purchasers need to surrender to get a unit of ours. Indeed, in a possible catch 22, our current account balances will not improve significantly until the dollar devaluation ends, but the dollar will continue to devalue until significant improvement is experienced in the current account deficit.

Despite problems in reducing the current account deficit, improvement in the inflation adjusted trade deficit will increase economic activity by nearly a percentage point in each of the next two years.

The decline in Federal government purchases this year largely reflects the Commodity Credit Corporation shifts in loan supports on agricultural products. However, defense procurement also is weakening because of previous restraints in defense obligations. Continued defense restraints are assumed, including a modest reduction in the size of the armed forces over the next two years. Thus, federal procurement programs will not be as stimulative in the next two years as they were in the past.

State and local governments also are expected to restrain their purchases in an effort to eliminate operating budget deficits. At the end of last year, operating deficits exceeded $15 billion and were still growing early this year as many states overestimated the tax collections they could expect from capital gains transactions. In addition to reduced spending growth, reduced wage gains and some increased taxes are expected to be used to address this deficit problem.

Following the election, a program of tax increases along with the above outlined restraint in expenditures is expected to be enacted by the next administration. The form of the tax initiative assumed in this outlook is a 5% surtax on corporations and individuals beginning in 1990. In addition, some excise taxes were expected to be increased. The announcement of this deficit reduction program is expected to dampen investor and consumer enthusiasm, causing reduced growth prior to the effective date for the tax collections. Initially, reduced growth will offset increased rates, leading to no discernible reduction in the deficit. However, the structural deficit will be sharply reduced, leading to significant deficit reduction when economic expansion resumes early in 1990. Some deficit reduction initiative is expected regardless of the outcome of the elections, although the form of the program will be influenced by the party who gains the White House.

Of course, the combination of monetary restraint and budgetary restraint normally leads to recessionary outcomes. While such an outcome is not out of the question, enough growth in export activity and in consumer spending should persist to prevent such an outcome. Moreover, the policy restraints will lead to falling interest rates and moderation of inflationary pressures. As a result, housing activity should rebound even as other sectors are slowing. Moreover, the construction correction in commercial and retail building will be nearing an end , allowing stronger gains in those sectors than normally would be expected under such policy conditions. Finally, the energy sector should begin recovering in anticipation of higher oil prices ahead. Recession in the Southwest should be ending when these other events are slowing other parts of the economy.

Before the shift in policy, however, the U.S. economy will be experiencing rising inflation and interest rates. Indeed, those conditions will hasten the change in monetary and budgetary conditions. In such circumstances the economy always faces the risk of speculative inventory holdings. Large inventory holdings by wholesalers already may reflect such behavior. Such inventory accumulation would lead to greater short-term growth, even higher interest rates and inflation, followed by a larger correction than

currently expected. Indeed, the Federal Reserve's reluctance to raise short-term interest rates, and therefore, increase the financial risks of engaging in such speculative inventory holdings, raises the risk of creating such an episode. Fortunately, the economic uncertainty created by a weak stock market may reduce the likelihood of developing such recession inducing inventory excesses.

Inflation already appears to be accelerating, with second quarter CPI increases at annual rates in excess of 6%. Rising oil prices have contributed to this price spurt, but oil prices cannot remain near $18 without some production restraints at this time. Failure by OPEC to approve such constraints assures declining oil prices into the summer months. This will reduce inflation to the vicinity of 4% until the summer's end. Then, oil prices once again will be rising because of increased worldwide demand and reduced production, especially in Alaska and the North Sea. Following a slight drop to $17.61 in 1988 oil imported into the U.S. is expected to average $20.46 in 1989 and exceed $22 early in 1990.

Although the dollar is expected to weaken at a reduced rate, a larger percentage of currency changes are expected to flow through to the consumer. In the past, importers only passed along 50% of currency changes in an effort to retain market share. However, with no profitability remaining in selling into the U.S. and with little prospect that profitability will return until after the dollar stabilizes, full exchange rate adjustments in imported goods soon should develop. Thus, the total dollar effects upon inflation will remain as intense as in the last two years.

Fortunately, wage pressures are only gradually intensifying. Although manufacturing wages are beginning to accelerate, wages in financial services are growing more slowly. Total wage costs per hour are expected to rise only slightly to a 3.5% gain in 1988, up from a 2.9% increase in 1987. A further increase to a 4.2% gain in 1989 is expected, although increases approaching 5% are likely late in that year. Rising wage costs mean increasing underlying inflation. The moderation of the rise suggests that inflation will intensify only slowly.

Interest rate pressures should reach their highest point late this year. If speculative inventory holdings develop, rates could exceed current estimates by 1.5 to 2.0 percentage points. However, the resulting recession to correct such imbalances soon would restore more moderate inflationary pressures and reduced interest rates. Interest rates almost certainly will rise over the next twelve months under almost any reasonable scenario. Then, if restraining monetary and budgetary policies are put in place, rates should begin declining, returning to current levels before the end of 1989.

Tight budgetary policies, momentarily rising interest rates, and rising wage pressures occurring simultaneously does not aid the prospects corporate profits or equity holders. Although a summer stock market rally may develop when inflation momentarily slows from its spring surge, and interest rate increases may pause, prices again are expected to trend downward into 1989

until the dimensions of the economic slowing are understood. Either holdings of foreign securities or cash equivalents will provide the best rates of return over the next twelve months unless investors wish to seek greater rewards, with greater risks, in the commodities markets. Prices may increase for grains and metals into the fall, while meat prices again may rise after the beginning of fall. On balance, however, high total rates of return will be difficult to achieve in next year's investment climate.

While an official recession is not expected during the next two years, policy shifts necessitated by signs that the economy may be overheating could lead to substantial slowing from which a recession would be only a small further weakness away. In the absence of such slowing, inflation and interest rates will rise and speculative inventory holdings could develop. Indeed, without the policy shift, the economy may generate sufficient imbalances to generate a recession. Arguments that changing interest rates are sufficient to prevent such imbalances have little merit. The length of this current cycle can be explained more easily by the lack of speed by which the expansion has traveled to the vicinity of production bottlenecks. If slow growth could continue, this expansion could proceed indefinitely. Unfortunately, activity has begun to accelerate even as production constraints are approaching. Only policy induced slowing may prevent the expansion ending frictions that normally develop at these levels of skilled unemployment and the utilization of capacity by producers of industrial materials.

ASSUMPTIONS

In 1989 the new administration is expected to seek enactment of a deficit reduction package that includes restraints on defense spending, slowing in the growth of other government programs, excise taxes as contained in the Reagan administration's long forgotten contingency program, and a tax surcharge of 5%. The actual deficit reduction program may differ from these assumptions, but a program approaching the magnitude described above is assumed. Without such a program, the dollar will weaken more rapidly, interest rates will be higher in 1989, and inflation will be higher. Moreover, speculative inventory holdings stimulated by rising prices may lead to restraint upon growth that would be at least as large as the deficit reduction package itself. Monetary policy is expected to remain accommodative until the election. Federal Reserve activity then is expected to become more restrained, as indicated in the financial assumptions in table 6. Once the economy slows, a shift to more expansive Federal Reserve activity again is anticipated before the end of next year.

Many of the budgetary assumptions are contained in table 5. In addition to the deficit reduction program outlined above, they include a 4.3% wage increase for the military at the end of 1988 and again late in 1989. Wage increases for other government employees is expected to be held to 2% and the appropriate civil service steps, leading to effective wage gains of slightly over 3%. At the state and local level, wage gains are expected to slow to 6% in 1988 and only 5% in 1989 because of budgetary stringencies. Wage freezes may be announced in several states.

Other forecast assumptions are as follows:

a. Cost-of-living adjustments for government programs are not expected to be modified by the deficit reduction program. Increases of 4.1% and 5.0% are expected in January 1989 and 1990 respectively.

b. Oil barrel imports are expected to increase by 7.5% in 1988 before inventory adjustments reduce imports by 1% in 1989. An increase in gasoline taxes is expected in 1989 but no import fees are expected.

c. Despite probable enactment of trade restraint legislation, no significant trade restraints are expected. The free trade agreement with Canada was not expected to become law.

d. The wage base for social security was assumed to be $47,100 in 1988 and $49,500 in 1989. Attempts to require medicare taxes on all earned income were not expected to succeed.

e. World trade is expected to grow 4% in 1988, 3.5% in 1989 and 3.0% in 1990.

f. No significant work stoppages were assumed.

CONCLUSION

Following modest hesitancy after the stock market crash, the consumer again appears to be ready to respond to sales incentives. At the same time, the dollar's continuing decline has greatly increased the competitiveness of American industry. This industrial expansion, in turn, has increased the desire to add plant and equipment. The combined impact of all these favorable forces is to generate more than normal rates of economic expansion in American industry. This is causing delivery delays, increases prices of industrial materials, and rising credit market pressures. Signs of an overheating economy are beginning to develop.

No significant Federal Reserve response to this condition is expected until after the election. Therefore, signs of economic strength will continue to unsettle long-term interest rates, leading to yields on long-term government bonds that could approach 10% late this year or early in 1989. Short-term interest rates are expected to rise significantly after the elections to stem any speculative inventory holdings that otherwise may develop.

Soon after the new administration takes office, a deficit reduction program is expected to be enacted that will initially reduce economic growth. However, such a program also will reduce price increases, lower interest rates and decrease the speed by which the dollar will decline. The combined impact of budgetary and monetary restraint will threaten a recession (one that might occur anyway because of imbalances created by speculative inventory holdings). However, continued expansion of exports and a sharp slowing in imports will

diminish the production loss associated with those policies.

Our current outlook does not contain a recession, but it shows sufficiently slow growth in 1989 to easily develop into a recession. A recession need not develop merely because the economy is operating at low unemployment levels for experienced workers and at high levels of resource utilization in some basic industries. However, such a prospect can be avoided by slowing expenditures growth, as assumed here, or accelerating productivity through efficient applications of research and capital expansion. No evidence of the latter condition are to be found.

Table 1.

Georgia State University
College of Business Administration
Economic Forecasting Center
May 1988

U.S. Expenditures for 1987-IV and 1988-I with Forecasts for 1988-II through 1990-I

		1987	1988				1989				1990	Percent Change			Annual		
		IV	I	II	III	IV	I	II	III	IV	I	86-87	87-88	88-89	1987	1988	1989
1.	Personal Consumption Expenditures	3022.6	3068.7	3118.6	3173.9	3211.5	3262.5	3312.6	3350.8	3405.0	3461.2	5.9	5.9	6.0	2967.9	3143.2	3332.7
2.	Autos and Parts	193.3	201.4	200.9	211.1	201.6	205.5	206.1	203.5	206.6	209.0	-0.2	5.1	0.8	193.9	203.8	205.4
3.	Other Durable Goods	219.7	224.3	225.4	225.7	225.7	226.7	227.5	227.8	228.0	228.5	5.7	2.5	1.0	219.8	225.3	227.5
4.	Nondurable Goods	993.1	993.9	1008.6	1021.5	1036.5	1049.3	1063.1	1072.3	1087.2	1102.7	4.4	3.3	5.2	982.9	1015.1	1068.0
5.	Services	1616.5	1649.0	1683.7	1715.6	1747.7	1781.0	1815.9	1847.2	1883.2	1921.0	7.8	8.1	7.8	1571.2	1699.0	1831.8
6.	Gross Private Domestic Investment	760.2	761.9	768.2	770.7	776.5	774.6	760.2	765.2	754.7	764.7	6.8	7.2	-0.7	717.5	769.3	763.7
7.	Residential Struct.	231.2	227.8	233.1	239.3	237.4	237.4	236.6	236.0	241.4	252.0	4.7	2.8	1.5	228.1	234.4	237.9
8.	Other Structures	141.1	140.4	141.3	141.6	141.7	141.8	142.5	143.4	145.1	146.7	-2.4	5.3	1.4	134.2	141.3	143.2
9.	Producers' Durables	318.5	336.8	343.2	351.2	353.1	356.5	358.1	360.1	360.6	361.6	2.8	11.9	3.7	309.3	346.1	358.8
10.	Change in Inventories	69.4	57.0	50.6	38.6	44.3	38.9	23.0	25.7	7.6	4.4	---	---	---	46.1	47.6	23.8
11.	Net Export of Goods and Services	-124.3	-115.4	-104.8	-104.8	-104.9	-106.1	-96.2	-95.4	-90.0	-82.7	---	---	---	-119.7	-107.5	-96.9
12.	Exports	458.1	470.6	482.5	500.3	513.8	524.1	540.7	552.6	562.1	574.9	13.4	15.0	10.8	427.8	491.8	544.9
13.	Imports	582.4	586.0	587.3	605.1	618.7	630.2	636.9	648.0	652.1	657.6	13.5	9.5	7.1	547.4	599.3	641.8
14.	Government Purchases of Goods and Services	948.8	945.6	958.1	974.3	986.5	1005.0	1023.8	1036.6	1053.0	1071.6	6.2	4.7	6.6	922.8	966.1	1029.6
15.	Federal	388.9	376.8	379.5	387.2	391.9	401.2	411.1	414.3	421.4	430.1	3.9	1.2	7.3	379.4	383.9	412.0
16.	National Defense	299.8	297.7	295.3	296.0	299.0	307.1	312.6	315.7	317.2	322.0	6.3	0.6	5.4	295.2	297.0	313.2
17.	Other	89.2	79.1	84.2	91.2	92.9	94.1	98.5	98.6	104.2	108.1	-3.5	3.2	13.8	84.2	86.9	98.9
18.	State and Local	559.9	568.9	578.6	587.1	594.6	603.8	612.7	622.3	631.6	641.5	7.9	7.2	6.1	543.4	582.3	617.6
19.	Gross National Product	4607.4	4660.9	4740.1	4814.1	4869.6	4936.0	5000.4	5057.2	5122.7	5214.8	5.9	6.3	5.4	4488.6	4771.2	5029.1
20.	Amount of Change	83.4	53.5	79.2	74.0	55.5	66.4	64.4	56.8	65.5	92.1	---	---	---	253.6	282.6	257.9
21.	% Change*	7.6	4.7	7.0	6.4	4.7	5.6	5.3	4.6	5.3	7.4	---	---	---	5.9	6.3	5.4
22.	% Real Change*	4.8	2.3	2.6	2.5	1.4	1.2	0.5	0.4	0.9	2.5	---	---	---	2.9	3.0	1.3
23.	% Price Change*	2.7	2.4	4.3	3.7	3.3	4.2	4.8	4.3	4.4	4.7	---	---	---	3.0	3.2	4.1
24.	Implicit Price Deflator	118.7	119.4	120.7	121.8	122.8	124.1	125.5	126.8	128.2	129.7	3.0	3.2	4.1	117.5	121.2	126.1
25.	Change in Final Sales	36.8	66.0	85.6	86.0	49.8	71.8	80.3	54.1	83.6	95.3	---	---	---	---	---	---
26.	GNP in 1982 Dollars	3880.8	3902.6	3928.0	3952.1	3966.0	3978.1	3983.5	3987.9	3996.4	4021.5	2.9	3.0	1.3	3821.1	3937.2	3986.5

Table 2.

Georgia State University
College of Business Administration
Economic Forecasting Center
May 1988

U.S. Real Expenditures for 1987-IV and 1988-I with Forecasts for 1988-II through 1990-I

	1987	1988				1989				1990	Percent Change			Annual		
	IV	I	II	III	IV	I	II	III	IV	I	86-87	87-88	88-89	1987	1988	1989
1. Personal Consumption	2504.8	2528.2	2534.3	2554.5	2553.7	2565.1	2572.1	2572.4	2582.1	2594.9	1.8	1.8	1.2	2497.2	2542.7	2572.9
2. Durable Goods	384.5	396.2	394.3	400.6	391.0	393.2	391.9	386.7	388.1	389.6	1.2	1.9	-1.4	388.2	395.5	390.0
3. Nondurable Goods	874.6	874.2	871.9	877.5	877.6	878.3	878.7	878.8	879.2	881.7	-0.2	-0.3	0.4	878.1	875.3	878.8
4. Services	1245.6	1257.7	1268.1	1276.4	1285.1	1293.6	1301.5	1306.9	1314.8	1323.6	3.5	3.3	2.5	1230.9	1271.8	1304.2
5. Gross Private Domestic Invest.	723.1	738.4	736.0	730.3	732.7	726.7	707.4	707.7	691.4	694.2	4.8	6.8	-3.5	687.6	734.4	708.3
6. Residential Structures	197.0	192.2	194.6	196.8	193.6	191.9	189.1	187.5	189.2	195.4	-0.1	-1.1	-2.5	196.4	194.3	189.4
7. Other Structures	129.8	128.1	127.9	127.0	126.2	125.3	124.8	124.5	124.9	125.1	-4.6	2.3	-1.9	124.5	127.3	124.9
8. Producers' Durables	335.8	360.3	365.1	371.6	371.7	372.9	372.3	371.7	370.7	369.4	2.9	13.4	1.3	323.9	367.2	371.9
9. Change in Inventories	60.5	57.9	48.4	34.9	41.2	36.6	21.2	24.0	6.6	4.3	---	---	---	42.9	45.6	22.1
10. Net Export of Goods and Services	-135.8	-132.2	-113.1	-109.3	-104.4	-99.4	-87.4	-85.1	-76.1	-67.0	---	---	---	-135.5	-114.8	-87.0
11. Exports	453.5	464.6	473.0	485.7	494.5	499.6	510.1	515.5	520.0	526.5	12.8	12.6	6.6	425.7	479.5	511.3
12. Imports	589.3	596.8	586.1	595.0	598.9	599.0	597.5	600.6	596.1	593.5	7.1	5.9	0.7	561.3	594.2	598.3
13. Gov't Purchases of Goods & Services	788.9	768.3	770.8	776.6	784.0	785.7	791.4	792.9	799.0	799.4	2.5	0.4	2.2	771.7	774.9	792.3
14. Federal	347.6	325.3	324.9	329.7	335.8	336.1	340.8	340.9	345.5	344.7	1.6	-2.1	3.6	336.0	328.9	340.8
15. State & Local	441.3	442.9	445.9	446.9	448.2	449.6	450.6	452.0	453.5	454.7	3.2	2.3	1.2	435.8	446.0	451.4
16. Gross National Product	3880.8	3902.6	3928.0	3952.1	3966.0	3978.1	3983.5	3987.9	3996.4	4021.5	2.9	3.0	1.3	3821.1	3937.2	3986.5
17. Final Demand	3820.3	3844.7	3879.6	3917.2	3924.8	3941.5	3962.3	3963.9	3989.8	4017.2	2.1	3.0	1.9	3797.6	3916.3	3964.4
18. Private Domestic Product	3493.0	3515.9	3539.8	3565.5	3579.8	3591.9	3597.3	3602.2	3607.3	3630.5	3.3	3.4	1.4	3434.3	3550.3	3599.8

Table 3.

Georgia State University
College of Business Administration
Economic Forecasting Center
May 1988

Income Related U.S. GNP Components for 1987-IV and 1988-I with Forecasts for 1988-II through 1990-I

		1987	1988				1989				1990	Percent Change			Annual		
		IV	I	II	III	IV	I	II	III	IV	I	86-87	87-88	88-89	1987	1988	1989
1.	Compensation of Employees	2713.5	2762.4	2803.1	2846.4	2877.9	2919.5	2959.8	2996.2	3037.7	3097.0	5.7	6.6	5.5	2647.6	2822.5	2978.3
2.	Wage and Salary	2269.9	2306.5	2342.2	2379.5	2406.3	2439.8	2474.5	2505.5	2541.3	2585.8	5.9	6.6	5.6	2212.8	2358.6	2490.3
3.	Manufacturing	494.7	499.8	505.4	511.5	512.5	516.7	521.3	524.0	529.0	534.4	2.9	4.8	3.0	484.0	507.3	522.8
4.	Other Commodity-Producing Industries	160.0	161.8	165.7	168.6	169.0	168.7	168.8	169.6	171.6	175.8	2.9	5.8	2.0	157.1	166.3	169.7
5.	Distributive Industries	535.0	542.9	552.0	560.6	568.1	575.2	583.7	591.8	600.2	609.9	5.2	6.3	5.7	522.9	555.9	587.7
6.	Service Industries	649.3	662.9	674.8	688.9	703.5	716.3	731.4	744.7	759.9	776.5	9.3	8.8	8.1	627.3	682.5	738.1
7.	Military	74.2	75.9	76.2	76.2	76.3	78.7	79.4	79.9	80.0	82.5	4.1	3.9	4.4	73.3	76.2	79.5
8.	Civilian Government	356.7	363.2	368.1	373.7	376.9	384.2	389.9	395.5	400.6	406.7	7.3	6.4	6.0	348.1	370.5	392.6
9.	Supplements	443.6	455.9	460.9	466.9	471.6	479.7	485.3	490.7	496.4	511.2	4.6	6.7	5.2	434.8	463.8	488.0
10.	Proprietors' Income	342.7	336.7	350.3	348.2	356.0	355.5	359.5	356.5	363.3	367.3	13.2	6.2	3.1	327.4	347.8	358.7
11.	Business & Professional	288.4	292.6	301.7	306.4	308.8	309.9	311.1	312.6	314.1	317.8	10.5	8.4	3.2	279.0	302.4	311.9
12.	Farm	54.3	44.1	48.6	41.8	47.2	45.6	48.4	43.9	49.2	49.5	30.9	-6.1	3.0	48.4	45.4	46.8
13.	Rental Income	20.9	21.1	20.7	21.1	21.6	22.1	22.7	23.1	23.5	23.7	10.9	9.6	8.2	19.3	21.1	22.9
14.	Net Interest	353.3	356.2	358.1	364.3	370.5	376.9	382.3	386.4	389.2	392.2	3.2	7.5	5.9	337.2	362.3	383.7
15.	Corporate Profits Adj.	313.0	308.5	309.4	315.6	312.3	317.2	309.3	300.5	306.0	312.9	7.1	2.2	-1.0	304.7	311.5	308.3
16.	National Income	3743.5	3784.9	3841.6	3895.6	3988.3	3991.2	4033.6	4062.7	4119.7	4193.1	6.2	6.6	4.5	3636.0	3877.6	4051.8
17.	Indirect Business Tax	375.9	381.3	387.5	394.7	399.2	405.8	412.3	418.7	426.7	434.9	5.7	6.2	6.5	367.8	390.7	415.9
18.	Capital Consumption Adj.	-29.2	-26.2	-22.3	-18.4	-15.2	-11.4	-6.8	-1.4	1.5	6.6	---	---	---	-27.1	-20.5	-4.5
19.	Capital Consumption Alw.	516.1	519.1	523.7	528.6	534.5	539.9	545.7	552.3	557.8	563.2	6.0	4.0	4.3	506.2	526.5	548.9
20.	Business Transfers	23.6	23.8	24.1	24.4	24.7	25.1	25.4	25.7	26.1	26.4	4.0	4.5	5.5	23.2	24.3	25.6
21.	Net Govt. Subsidies	-20.4	-9.5	-7.9	-3.6	-11.7	-4.1	-1.3	1.1	-9.7	-7.8	50.0	-37.0	-57.2	-13.0	-8.2	-3.5
22.	Statistical Discrepancy	-1.8	-12.5	-6.6	-7.2	-0.2	-10.5	-8.5	-1.9	0.6	-1.6	---	---	---	-4.0	-6.6	-5.1
23.	Gross National Product	4607.4	4660.9	4740.1	4814.1	4869.6	4936.0	5000.4	5057.2	5122.7	5214.8	5.9	6.3	5.4	4488.6	4771.2	5029.1

Table 4.

Georgia State University
College of Business Administration
Economic Forecasting Center
May 1988

Derivation of U.S. Personal Income for 1987-IV and 1988-I with Forecasts for 1988-II through 1990-I

	1987	1988				1989				1990	Percent Change			Annual		
	IV	I	II	III	IV	I	II	III	IV	I	86-87	87-88	88-89	1987	1988	1989
1. National Income	3743.5	3784.9	3841.6	3895.6	3988.3	3991.2	4033.6	4062.7	4119.7	4193.1	6.2	6.6	4.5	3636.0	3877.6	4051.8
2. Less: Corp. Profits Adj.	313.0	308.5	309.4	315.6	312.3	317.2	309.3	300.5	306.0	312.9	7.1	2.2	-1.0	304.7	311.5	308.3
3. Social Insurance	403.7	429.9	436.0	442.5	446.7	457.5	463.0	468.1	473.8	494.8	5.4	11.2	6.1	394.5	438.8	465.6
4. Plus: Gov't Transfers	527.8	545.2	551.6	556.4	560.4	577.2	583.9	589.7	594.9	612.8	4.8	6.4	6.0	519.9	553.4	586.4
5. Old Age, Survivors, etc.	286.5	297.8	300.3	302.5	304.2	315.9	318.6	320.7	322.5	334.8	5.1	6.5	6.1	282.8	301.2	319.4
6. Unemployment Benefits	13.2	13.4	13.7	12.9	12.7	12.8	13.3	14.1	14.7	14.9	-11.0	-9.5	4.2	14.6	13.2	13.7
7. Veterans' Benefits	16.4	16.4	16.5	16.5	16.4	16.6	16.7	16.6	16.7	16.9	-0.9	-0.8	1.2	16.6	16.5	16.7
8. Employees' Retirement	77.6	80.8	82.4	83.9	85.1	87.2	88.6	89.8	90.5	92.8	7.2	9.0	7.2	76.2	83.1	89.0
9. A.F.D.C.	16.8	16.6	16.7	16.7	16.8	17.0	16.9	16.9	17.0	17.3	2.6	0.0	1.5	16.7	16.7	17.0
10. Other	117.2	120.3	122.0	123.9	125.2	127.7	129.8	131.6	133.5	136.1	6.1	8.7	6.3	113.0	122.9	130.7
11. Business Transfers	23.6	23.8	24.1	24.4	24.7	25.1	25.4	25.7	26.1	26.4	4.0	4.5	5.5	23.2	24.3	25.6
12. Interest Transfers	185.4	189.7	192.6	196.1	200.2	202.9	205.9	207.9	210.1	212.1	2.9	8.7	6.2	179.1	194.7	206.7
13. Personal Dividends	90.5	92.1	93.5	94.9	96.3	97.9	99.3	100.7	102.2	104.6	7.8	7.7	6.2	87.5	94.2	100.0
14. Equals: Personal Income	3854.4	3697.2	3958.0	4009.2	4060.8	4119.6	4175.8	4218.1	4273.1	4341.3	6.0	6.3	5.4	3746.5	3981.3	4196.7
15. Less: Personal Tax Payments	579.4	577.0	606.3	610.7	618.7	605.7	623.1	633.3	644.2	675.2	10.2	6.8	3.9	564.9	603.2	626.6
16. Equals: Disposable Personal Income	3275.0	3320.2	3351.7	3398.5	3442.1	3513.9	3552.7	3584.8	3628.9	3666.1	5.3	6.2	5.7	3181.7	3378.1	3570.1
17. Less: Consumption	3022.6	3068.7	3118.6	3173.9	3211.5	3262.5	3312.6	3350.8	3405.0	3461.2	5.9	5.9	6.0	2967.9	3143.2	3332.7
18. Less: Other Outlays	96.7	98.4	99.6	100.8	102.3	103.8	105.2	106.4	107.5	108.7	3.6	5.7	5.4	94.9	100.3	105.7
19. Equals: Personal Savings	155.7	153.1	133.5	123.8	128.3	147.6	134.9	127.6	116.4	96.2	-7.9	13.1	-2.3	119.0	134.7	131.6
20. Savings Rate (%)	4.8	4.6	4.3	3.6	3.7	4.2	3.8	3.6	3.2	2.6	-13.2	8.0	-8.6	3.8	4.1	3.7

Table 5.

Georgia State University
College of Business Administration
Economic Forecasting Center
May 1988

U.S. Federal Government Activity for 1987-IV and 1988-I with Forecasts for 1988-II through 1990-I

	1987	1988				1989				1990	Percent Change			Annual		
	IV	I	II	III	IV	I	II	III	IV	I	86-87	87-88	88-89	1987	1988	1989
1. Government Receipts	937.6	955.6	989.7	1003.0	1010.1	1007.1	1028.1	1038.1	1056.6	1119.6	10.7	8.1	4.3	915.7	989.6	1032.5
2. Personal Tax & Non-Tax	413.5	406.5	431.8	433.0	427.9	421.2	435.2	442.5	450.1	476.9	11.2	5.2	2.9	403.7	424.8	437.3
3. Corporate Profits Tax	112.3	110.4	112.7	118.0	116.0	118.8	119.9	116.4	119.9	134.1	31.2	4.4	3.9	109.4	114.3	118.8
4. Indirect Business Tax	54.9	56.3	57.7	59.0	59.6	60.9	62.2	64.3	66.7	69.2	6.1	7.5	9.2	54.1	58.2	63.5
5. Contributions for Social Security	356.8	382.4	387.5	393.0	396.6	406.2	410.8	414.9	419.9	439.4	5.6	11.9	5.9	348.5	389.9	413.0
6. Government Expenditures	1097.8	1091.9	1103.2	1112.8	1137.2	1153.5	1167.2	1174.4	1202.7	1225.1	3.6	4.1	5.7	1067.1	1111.3	1174.5
7. Purchases of Goods and Services	388.9	376.8	379.5	387.2	391.9	401.2	411.1	414.3	421.4	430.1	3.9	1.2	7.3	379.4	383.9	412.0
8. Defense	299.8	297.7	295.3	296.0	299.0	307.1	312.6	315.7	317.2	322.0	6.3	0.6	5.4	295.2	297.0	313.2
9. Durables	89.2	86.4	83.9	83.7	85.9	88.3	90.8	91.6	92.0	92.2	7.3	-5.5	6.7	90.0	85.0	90.7
10. Nondurables	11.4	10.7	10.9	11.3	11.4	11.6	11.9	12.1	12.2	12.4	-3.8	4.0	7.9	10.7	11.1	12.0
11. Military Compensation	74.2	75.9	76.2	76.2	76.3	78.7	79.4	79.9	80.0	82.5	4.1	3.9	4.4	73.3	76.2	79.5
12. Civilian Compensation	35.8	36.7	36.9	37.0	36.9	38.0	38.3	38.4	38.5	39.7	4.7	3.9	3.9	35.5	36.9	38.3
13. Other Services	81.5	80.7	80.1	80.3	80.9	82.7	84.3	85.9	87.0	87.6	8.9	2.6	5.6	78.4	80.5	85.0
14. Structures	7.7	7.3	7.3	7.5	7.6	7.8	7.9	7.8	7.5	7.6	12.1	0.7	4.4	7.4	7.4	7.8
15. Nondefense	89.2	79.1	84.2	91.2	92.9	94.1	98.5	98.6	104.2	108.1	-3.5	3.2	13.8	84.2	86.9	98.9
16. Durables	5.0	5.1	5.2	5.2	5.3	5.4	5.5	5.5	5.7	5.8	10.9	11.8	6.3	4.7	5.2	5.5
Nondurables	4.1	-7.1	-3.5	2.7	3.4	2.6	5.8	4.9	9.0	10.6	---	---	---	2.0	-1.1	5.6
17. CCC Inventory Change	-2.3	-13.6	-10.2	-4.3	-3.7	-4.7	-1.6	-2.7	1.3	2.8	---	---	---	-4.5	-8.0	-1.9
18. Other Nondurables	6.4	6.5	6.7	7.0	7.1	7.3	7.4	7.6	7.7	7.8	5.1	9.2	9.9	6.3	6.8	7.5
19. Compensation	41.9	43.2	43.5	43.5	43.5	44.8	45.2	45.6	46.4	47.8	4.9	4.5	4.8	41.6	43.4	45.5
20. Other Services	29.7	30.5	31.2	32.2	32.9	33.4	34.0	34.4	35.0	35.6	4.9	12.5	7.9	28.2	31.7	34.2
21. Structures	8.4	7.4	7.8	7.6	7.8	7.9	8.0	8.2	8.1	8.3	14.1	-1.9	5.2	7.8	7.7	8.1
22. Transfer Payments	421.8	431.7	436.9	438.9	445.5	456.8	459.7	463.1	470.7	483.5	3.3	6.0	5.6	413.5	438.3	462.6
23. Grants-in-Aid to State and Local Governments	102.0	105.7	107.3	107.6	108.2	108.8	109.4	110.2	110.6	111.9	-2.0	3.6	2.4	103.4	107.2	109.8
24. Net Interest Paid	148.9	152.6	155.8	159.5	163.8	166.3	169.2	171.2	173.3	174.7	5.1	10.6	7.6	142.8	157.9	170.0
25. Deficit of Government Enterprises	35.8	25.1	23.7	19.6	27.8	20.4	17.8	15.6	26.7	24.9	20.3	-14.2	-16.3	28.0	24.1	20.1
26. Federal Surplus	-160.2	-136.3	-113.5	-109.8	-127.1	-146.4	-139.1	-136.3	-146.1	-105.5	---	---	---	-151.4	-121.7	-142.0
27. Federal Debt Held by Individuals	1718.5	1761.0	1766.9	1784.2	1807.5	1845.6	1855.5	1877.6	1906.4	1935.9	9.7	6.3	5.1	1675.1	1779.9	1871.3
28. Total Government Surplus	-122.3	-95.7	-70.6	-64.2	-82.2	-100.2	-92.7	-92.8	-101.3	-58.7	---	---	---	-107.4	-78.2	-96.8

Table 6.

Georgia State University
College of Business Administration
Economic Forecasting Center
May 1988

Selected Economic Variables of the U.S. Economy for 1987-IV and 1988-I with Forecasts for 1988-II through 1990-I

	1987	1988				1989				1990	Percent Change			Annual		
	IV	I	II	III	IV	I	II	III	IV	I	86-87	87-88	88-89	1987	1988	1989
Private Economy																
1. Change in Private Hourly Wage Costs	3.5	3.7	3.0	3.9	3.9	4.3	4.4	4.6	4.7	5.9	2.9	3.5	4.2	13.93	14.42	15.03
2. Change in Output Per Worker Hour	0.7	-0.6	-0.4	0.2	0.8	0.4	-0.6	0.1	-0.6	0.6	0.8	0.3	0.1	22.008	22.077	22.099
3. Change in Implicit Unit Labor Costs	3.1	4.3	3.4	3.7	3.1	3.9	5.0	4.4	5.3	5.2	2.1	3.2	4.1	0.633	0.653	0.680
4. Change in Private Price Deflator	2.4	1.7	4.2	3.8	3.4	3.9	4.7	4.1	4.7	4.5	2.7	2.9	4.0	1.161	1.195	1.243
Prices																
5. Consumer Price Index	115.4	116.1	117.8	119.1	120.5	121.8	123.4	125.0	126.3	127.8	3.7	4.2	4.9	113.6	118.4	124.1
6. Industrial Commod. (Producer Price Index)	104.1	104.7	105.8	106.9	107.9	109.1	110.8	112.1	113.1	114.5	2.7	3.4	4.7	102.8	106.3	111.3
Corporate Economy																
7. After Tax Profit	145.6	140.8	146.0	149.0	147.7	150.3	151.1	145.8	149.4	141.7	8.1	5.9	2.2	137.8	145.9	149.2
8. Inventory Profits	-21.3	-15.9	-19.9	-21.1	-18.7	-17.6	-25.3	-21.4	-23.3	-21.9	---	----	---	-17.6	-18.9	-21.9
9. Genuine Profits	173.0	170.8	168.7	168.2	167.5	169.0	150.7	155.4	156.5	148.1	-6.4	0.3	-5.1	168.4	168.8	160.2
10. Mean Closing Dow Jones	2022.2	1990.8	2016.4	2163.8	1991.7	1907.4	1796.7	1755.8	1788.2	1826.6	26.9	-10.3	-11.2	2276.0	2040.7	1812.0
11. Mean Closing NY Composite	143.07	145.19	148.67	154.26	147.51	144.62	138.92	134.28	136.65	141.29	18.8	-7.9	-6.9	161.7	148.9	138.6
Financial																
12. Monetary Base	266.8	272.8	278.2	283.6	288.2	292.6	296.9	300.8	305.9	311.2	8.9	7.7	6.5	260.6	280.7	299.1
13. Checkable Deposits	558.4	561.1	567.7	577.1	582.9	596.5	610.4	622.1	635.4	647.3	12.3	3.1	7.7	555.2	572.2	616.1
14. M1	753.3	760.6	771.3	785.0	794.3	811.6	829.2	844.0	861.1	877.0	11.2	4.5	7.5	744.0	777.8	836.5
15. Velocity of M1	6.080	6.094	6.110	6.101	6.101	6.053	6.003	5.967	5.922	5.919	-4.7	1.8	-1.9	5.996	6.102	5.987
16. M2	2897.4	2946.8	3012.6	3069.7	3111.8	3159.7	3209.7	3261.4	3317.8	3378.3	6.5	6.1	6.7	2861.7	3035.2	3237.2
17. Velocity of M2	1.581	1.573	1.564	1.560	1.557	1.555	1.551	1.544	1.537	1.537	-0.3	0.3	-1.1	1.559	1.564	1.547
18. Federal Funds	6.92	6.66	6.98	7.08	7.36	7.16	6.94	6.53	6.35	6.43	-2.2	5.5	-3.9	6.66	7.02	6.75
19. Prime Rate	8.87	8.59	8.67	8.75	9.04	9.25	9.25	8.96	8.59	8.50	-1.6	6.8	2.9	8.20	8.76	9.01
20. 6 Month T-Bills	6.41	6.03	6.28	6.38	6.69	6.48	6.19	5.98	5.76	5.81	0.0	5.2	-3.8	6.03	6.35	6.10
21. Seasoned AAA Corp.	10.21	9.56	9.78	10.08	10.26	10.03	9.86	9.56	9.39	9.54	3.9	5.8	-2.1	9.38	9.92	9.71
22. FHA Mortgage Rates	10.85	10.08	10.39	10.64	10.89	10.73	10.59	10.08	9.92	10.17	0.3	2.9	-1.6	10.21	10.50	10.33
Miscellaneous																
23. Housing Starts	1533	1480	1560	1503	1499	1465	1445	1429	1463	1517	-10.0	-7.6	-4.0	1634	1510	1451
24. Single Family Starts	1090	1102	1153	1102	1083	1056	1029	1007	1036	1082	-2.5	-4.0	-7.0	1157	1110	1032
25. Unit Auto Sales	10.03	10.70	10.20	10.53	10.02	10.15	9.86	9.35	9.43	9.50	-12.6	2.0	-6.4	10.16	10.36	9.70
26. Civilian Employment	113.486	114.214	114.720	115.405	115.919	116.325	116.767	117.048	117.507	118.002	2.6	2.3	1.6	112.451	115.065	116.912
27. Unemployment Rate	5.9	5.7	5.4	5.2	5.1	5.1	5.2	5.3	5.4	5.4	-11.4	-14.5	-0.9	6.2	5.3	5.3
28. Industrial Production	133.2	134.4	135.5	136.8	137.1	137.0	135.4	134.9	133.2	133.9	3.7	4.7	-0.6	129.8	136.0	135.1
29. Asset-Consumption Ratio	3.969	3.956	3.934	3.921	3.868	3.831	3.778	3.741	3.733	3.723	-1.1	-4.3	-3.8	4.096	3.920	3.771

Table 7.

Georgia State University
College of Business Administration
Economic Forecasting Center
May 1988

U. S. Foreign Trade Accounts for 1986 with Forecasts for 1987 through 1989

	1986	1987	1988	1989	Percent Change 86-87	87-88	88-89
Exports of U.S. Merchandise	216629	252931	296175	332326	15.8	17.1	12.2
Food & Live Animals	17303	19179	23289	26133	10.5	21.4	12.2
Beverages & Tobacco	2920	3667	4463	4935	23.1	21.7	10.6
Crude Materials	17324	20416	26959	30708	16.6	32.0	13.9
Mineral Fuels	8115	7713	7516	8743	-7.1	-2.6	16.3
Animal & Vegetable Oils	1015	981	1473	1606	-4.9	50.1	9.0
Chemicals	22766	26411	30227	34355	15.0	14.5	13.7
Manufactured Goods	14005	17136	21381	25628	21.7	24.8	19.9
Machinery, Trans. Equipment	95290	108632	125269	138188	13.5	15.3	10.3
Miscellaneous Manufacturing	16654	19409	23588	27468	16.3	21.5	16.4
Commodities, n.e.c.	10986	20381	20904	21678	79.8	2.6	3.7
Foreign Merchandise	10928	9007	11105	12888	-18.0	23.3	16.0
Imports of Merchandise	382964	424072	453818	478260	11.0	7.0	5.4
Food & Live Animals	22395	22224	24424	25915	-0.4	9.9	6.1
Beverages & Tobacco	4226	4461	4145	4005	8.2	-7.1	-3.4
Crude Materials	11176	12299	13581	15078	9.9	10.4	11.0
Mineral Fuels	39838	46724	48932	55968	18.5	4.7	14.4
Animal & Vegetable Oils	581	629	835	883	10.7	32.6	5.7
Chemicals	15812	17037	20891	23548	6.6	22.6	12.7
Manufactured Goods	51700	56364	63727	68283	9.3	13.1	7.1
Machinery, Trans. Equipment	166240	182807	192821	198845	9.9	5.5	3.1
Miscellaneous Manufacturing	60079	69027	72443	73220	15.7	4.9	1.1
Commodities, n.e.c.	15042	12500	12020	12518	-15.7	-3.8	4.1
Foreign Transactions							
Total Exports	376.2	427.8	491.8	544.9	13.4	15.0	10.8
Merchandise Exports	224.9	257.6	306.0	340.6	14.5	18.8	11.3
Factor Income	86.1	94.6	106.5	117.9	8.2	12.6	10.7
Other Services	65.2	75.5	79.4	86.4	16.4	5.1	8.9
Total Imports	481.7	547.4	599.3	641.8	13.5	9.5	7.1
Merchandise Imports	367.5	411.3	442.9	465.2	11.7	7.7	5.0
Factor Income	52.4	67.2	81.2	95.6	28.4	20.8	17.7
Other Services	61.9	68.9	75.2	81.1	11.2	9.1	7.9
Transfer	15.7	13.0	12.8	12.2	-18.6	-1.5	-4.7
Government Interest	22.6	24.3	26.3	28.5	6.3	8.2	8.4
Net Foreign Investment	-143.9	-156.9	-146.5	-137.6	---	---	---
Trade Weighted Value of Dollar (3/73=100)	112.3	97.0	89.0	84.5	-13.6	-8.2	-5.1

Table 8. Economic Forecasting Center May 1988

Implicit Price Deflators for Personal Consumption Expenditures for 1987-IV and 1988-I with Forecasts for 1988-II through 1990-I

	1987	1988				1989				1990	Percent Change			Annual		
	IV	I	II	III	IV	I	II	III	IV	I	86-87	87-88	88-89	1987	1988	1989
Durable Goods	107.4	107.4	108.1	109.0	109.3	109.9	110.6	111.5	112.0	112.3	1.6	1.8	2.3	106.6	108.5	111.0
% Change	0.2	0.1	2.5	3.5	0.9	2.3	2.7	3.3	1.6	1.1						
Automobiles	115.9	115.8	117.0	118.2	118.7	119.0	120.3	121.7	122.4	122.6	3.2	2.7	2.9	114.4	117.4	120.9
% Change	2.0	-0.3	4.2	4.1	1.8	0.9	4.5	4.7	2.3	0.6						
Furniture	95.8	95.5	95.4	95.6	95.3	95.9	95.8	96.1	95.7	95.5	-0.7	-0.5	0.5	96.0	95.4	95.9
% Change	-0.9	-1.3	-0.2	0.7	-1.2	2.6	-0.5	1.2	-1.6	-0.8						
Other Durables	113.2	114.5	115.9	116.9	118.2	119.8	121.4	122.9	124.4	126.0	3.7	4.8	4.9	111.1	116.4	122.1
% Change	6.9	4.8	4.7	3.5	4.8	5.5	5.2	5.0	5.0	5.3						
Nondurables	113.5	113.7	115.7	116.4	118.1	119.5	121.0	122.0	123.7	125.1	4.5	3.6	4.8	111.9	116.0	121.5
% Change	3.3	0.5	7.2	2.6	6.0	4.7	5.2	3.5	5.5	4.6						
Food	118.4	118.6	120.0	120.8	122.1	123.5	124.8	126.1	127.5	128.8	4.5	3.0	4.2	116.9	120.4	125.5
% Change	2.8	0.7	4.8	2.6	4.4	4.7	4.2	4.2	4.5	4.2						
Apparel	113.2	113.1	116.1	115.3	117.8	118.2	120.3	119.9	121.3	121.9	4.7	4.1	3.8	111.0	115.6	119.9
% Change	10.2	-0.6	11.1	-2.8	9.1	1.3	7.2	-1.3	4.7	2.0						
Gasoline & Oil	80.9	79.3	82.0	83.6	85.7	87.9	89.4	90.9	93.3	95.7	5.6	4.0	9.4	79.4	82.6	90.4
% Change	-5.1	-7.8	14.5	8.3	10.0	10.9	7.1	6.9	10.8	10.6						
Fuel Oil	75.3	76.5	78.7	79.3	82.1	84.1	85.4	86.0	89.2	91.5	0.2	5.4	8.9	75.1	79.1	86.2
% Change	-5.7	6.2	11.9	3.4	14.5	10.3	6.5	2.8	15.5	10.8						
Other Nondurables	126.8	128.3	129.8	131.2	132.7	134.3	135.9	137.6	139.2	140.9	4.3	4.5	4.8	124.9	130.5	136.7
% Change	3.8	4.9	4.5	4.4	4.7	4.8	4.9	5.0	5.0	4.7						
Services	129.8	131.1	132.8	134.4	136.0	137.7	139.5	141.3	143.2	145.1	4.2	4.7	5.1	127.6	133.6	140.4
% Change	4.8	4.2	5.2	5.0	4.8	5.0	5.5	5.3	5.5	5.4						
Housing	133.5	135.1	136.7	138.4	140.2	142.1	144.1	146.1	148.2	150.4	4.8	5.2	5.5	130.8	137.6	145.1
% Change	6.8	4.7	4.8	5.1	5.3	5.5	5.8	5.6	5.9	6.0						
Electricity & Gas	112.1	112.0	112.8	113.8	113.5	113.6	115.0	116.2	116.0	116.9	-1.5	0.6	1.9	112.4	113.0	115.2
% Change	-2.4	-0.4	3.0	3.6	-1.2	0.5	5.0	4.1	-0.6	3.1						
Household Operations	125.6	125.9	127.6	128.7	129.3	130.0	130.9	132.1	133.1	134.3	2.3	2.4	2.8	124.9	127.9	131.5
% Change	0.2	0.9	5.6	3.5	1.8	2.0	3.0	3.6	3.0	3.8						
Transportation	121.9	123.3	125.5	127.4	129.5	131.8	133.8	135.8	138.1	140.1	6.1	5.8	6.7	119.5	126.4	134.9
% Change	6.6	4.6	7.5	6.0	7.0	7.3	6.2	6.1	6.8	6.1						
Medical Care	136.0	138.0	140.1	142.2	144.4	146.7	149.1	151.5	154.1	156.7	5.0	5.9	6.5	133.3	141.2	150.3
% Change	6.0	6.1	6.3	6.1	6.3	6.5	6.8	6.5	7.1	6.9						
Other Services	128.2	129.4	130.8	132.2	133.6	135.0	136.5	137.9	139.5	140.9	4.1	4.1	4.3	126.3	131.5	137.2
% Change	3.8	3.9	4.3	4.4	4.3	4.3	4.5	4.2	4.7	4.0						
Personal Consump Exp	120.7	121.4	123.1	124.2	125.8	127.2	128.8	130.3	131.9	133.4	4.1	4.0	4.8	118.9	123.6	129.6
% Change	4.1	2.3	5.7	3.6	5.3	4.5	5.1	4.7	5.0	4.6						
Consumer Price Index	115.4	116.1	117.8	119.1	120.5	121.8	123.4	125.0	126.3	127.8	3.7	4.2	4.9	113.6	118.4	124.1
% Change	3.5	2.4	6.0	4.5	4.8	4.4	5.4	5.3	4.2	4.8						

Table 9.

Georgia State University
College of Business Administration
Economic Forecasting Center
May 1988

Implicit Price Deflators with Annual Percentage Changes for 1987-IV and 1988-I with Forecasts for 1988-II through 1990-I

	1987	1988				1989				1990	Percent Change			Annual		
	IV	I	II	III	IV	I	II	III	IV	I	86-87	87-88	88-89	1987	1988	1989
GNP Deflator	118.7	119.4	120.7	121.8	122.8	124.1	125.5	126.8	128.2	129.7	3.0	3.2	4.1	117.5	121.2	126.1
% Change	2.7	2.4	4.4	3.7	3.3	4.3	4.6	4.2	4.5	4.8						
Personal Cons. Exp.	120.7	121.4	123.1	124.2	125.8	127.2	128.8	130.3	131.9	133.4	4.1	4.0	4.8	118.9	123.6	129.6
% Change	4.1	2.3	5.7	3.6	5.3	4.5	5.1	4.7	5.0	4.6						
Private Domestic Investment	105.1	103.2	104.4	105.5	106.0	106.6	107.5	108.1	109.2	110.2	2.1	0.4	2.9	104.3	104.8	107.8
% Change	5.5	-7.0	4.6	4.5	1.7	2.3	3.3	2.5	3.9	3.7						
Structures	108.7	109.6	110.5	111.5	112.3	113.2	114.2	115.2	116.2	117.3	2.2	2.9	3.4	107.8	111.0	114.7
% Change	3.4	3.4	3.3	3.7	2.9	3.2	3.6	3.5	3.5	3.8						
Producers' Durables	94.9	93.5	94.0	94.5	95.0	95.6	96.2	96.9	97.3	97.9	0.0	-1.3	2.4	95.5	94.3	96.5
% Change	0.0	-5.8	2.2	2.1	2.1	2.6	2.5	2.9	1.7	2.5						
Residential Structures	117.4	118.5	119.8	121.6	122.6	123.7	125.1	125.9	127.6	129.0	4.8	3.9	4.1	116.2	120.6	125.6
% Change	-1.4	3.8	4.5	6.1	3.3	3.6	4.6	2.6	5.5	4.5						
Exports	101.0	101.3	102.0	103.0	103.9	104.9	106.0	107.2	108.1	109.2	0.5	2.1	3.9	100.5	102.6	106.6
% Change	2.0	1.2	2.8	4.0	3.5	3.9	4.3	4.6	3.4	4.1						
Imports	98.8	98.2	100.2	101.7	103.3	105.2	106.6	107.9	109.4	110.8	5.9	3.5	6.4	97.5	100.9	107.3
%Change	4.2	-2.4	8.4	6.1	6.4	7.5	5.4	5.0	5.7	5.2						
Federal	111.9	115.8	116.8	117.4	116.7	119.4	120.6	121.5	122.0	124.8	2.3	3.3	3.6	112.9	116.7	120.9
% Change	-5.9	14.7	3.5	2.1	-2.4	9.6	4.1	3.0	1.7	9.5						
Federal Purchases	105.5	109.2	110.4	111.5	110.5	112.5	114.1	115.3	116.0	118.4	1.3	2.6	3.7	107.6	110.4	114.5
% Change	-10.6	14.8	4.5	4.0	-3.5	7.4	5.8	4.3	2.5	8.5						
Federal Value Added	123.5	126.7	127.4	127.5	127.5	131.2	132.2	132.5	132.4	136.0	4.3	4.0	3.8	122.4	127.3	132.1
% Change	3.3	10.8	2.2	0.3	0.0	12.1	3.1	0.9	-0.3	11.3						
State & Local	126.9	128.4	129.8	131.4	132.7	134.3	136.0	137.7	139.3	141.1	4.5	4.7	4.8	124.7	130.6	136.8
% Change	4.2	4.8	4.4	5.0	4.0	4.9	5.2	5.1	4.7	5.3						
State & Local Purchases	114.3	114.8	115.6	116.8	118.0	119.3	120.6	122.1	123.7	125.3	2.6	3.0	4.4	113.0	116.3	121.4
% Change	2.1	1.8	2.8	4.2	4.2	4.5	4.4	5.1	5.3	5.3						
State & Local Value Added	137.3	139.8	141.6	143.6	144.9	146.8	148.8	150.8	152.4	154.4	6.1	6.1	5.1	134.3	142.5	149.7
% Change	6.4	7.5	5.3	5.8	3.7	5.3	5.6	5.5	4.3	5.4						

Table 10.

Georgia State University
College of Business Administration
Economic Forecasting Center
May 1988

Consumption Details for 1987-IV and 1988-I with Forecasts for 1988-II through 1990-I

	1987	1988				1989				1990	Percent Change			Annual		
	IV	I	II	III	IV	I	II	III	IV	I	86-87	87-88	88-89	1987	1988	1989
CURRENT DOLLARS																
Durable Goods	413.0	425.7	426.3	436.8	427.3	432.2	433.6	431.3	434.6	437.5	2.9	3.7	0.9	413.7	429.0	432.9
Motor Vehicles & Parts	193.3	201.4	200.9	211.1	201.6	205.5	206.1	203.5	206.6	209.0	-0.2	5.1	0.8	193.9	203.8	205.4
Furniture	146.8	151.1	151.6	151.5	150.2	150.6	150.8	150.4	149.4	149.0	4.6	3.0	-0.5	146.7	151.1	150.3
Other	72.9	73.3	73.8	74.2	75.2	76.1	76.7	77.4	78.6	79.5	8.1	1.3	4.1	73.2	74.1	77.2
Nondurable Goods	993.1	993.9	1008.6	1021.5	1036.5	1049.3	1063.1	1072.3	1087.2	1102.7	4.4	3.3	5.2	982.9	1015.1	1068.0
Food	519.3	520.7	527.3	532.2	538.7	546.4	553.1	558.6	565.9	574.4	3.3	2.7	5.0	515.8	529.7	556.0
Clothing & Shoes	179.6	177.2	179.6	181.9	184.5	185.7	188.1	188.8	189.9	191.2	5.3	2.1	4.1	177.0	180.8	188.1
Gas & Oil	82.1	81.0	82.4	83.9	86.1	88.0	89.7	91.4	93.5	95.7	6.1	3.8	8.8	80.3	83.4	90.7
Fuel Oil & Coal	16.2	16.6	16.6	16.9	17.4	18.0	18.2	18.5	19.0	19.4	-0.9	6.6	9.2	15.8	16.9	18.4
Other	195.8	198.3	202.7	206.6	209.8	211.2	214.0	215.0	218.9	222.0	6.0	5.4	5.1	193.9	204.4	214.8
Services	1616.5	1649.0	1683.7	1715.6	1747.7	1781.0	1815.9	1847.2	1883.2	1921.0	7.8	8.1	7.8	1571.2	1699.0	1831.8
Housing	483.7	492.4	501.4	510.8	520.7	531.0	541.8	552.6	563.9	575.7	7.4	7.9	8.1	469.3	506.3	547.3
Household Operations Gas & Electric	88.9	90.5	91.5	92.2	92.5	93.3	94.9	95.5	95.7	96.9	-0.3	4.9	3.5	87.4	91.7	94.9
Household Operations Other	97.1	98.7	100.7	101.7	102.8	104.1	105.4	106.6	107.8	109.2	4.4	6.6	5.0	94.8	101.0	106.0
Transportation	109.1	111.8	115.1	117.8	120.6	123.4	125.8	127.4	129.8	132.3	8.4	8.0	8.8	107.7	116.3	126.6
Medical Care	363.3	372.0	381.5	391.0	400.8	410.7	421.2	431.1	442.7	454.1	9.8	10.1	10.4	351.0	386.3	426.4
Other	474.5	483.7	493.5	502.1	510.3	518.5	526.8	534.0	543.3	552.8	8.5	7.3	6.7	463.6	497.4	530.7
CONSTANT DOLLARS																
Durable Goods	384.5	396.2	394.3	400.6	391.0	393.2	391.9	386.7	388.1	389.6	1.2	1.9	-1.4	388.2	395.5	390.0
Motor Vehicles & Parts	166.8	173.9	171.7	178.6	169.8	172.7	171.3	167.2	168.8	170.5	-3.3	2.4	-2.0	169.5	173.5	170.0
Furniture	153.3	158.3	158.9	158.5	157.6	157.0	157.4	156.5	156.1	156.0	5.3	3.6	-1.0	152.9	158.3	156.8
Other	64.4	64.0	63.7	63.5	63.6	63.5	63.2	63.0	63.2	63.1	4.3	-3.3	-0.2	65.9	63.7	63.6
Nondurable Goods	874.6	874.2	871.9	877.5	877.6	878.3	878.7	878.8	879.2	881.7	-0.2	-0.3	0.4	878.1	875.3	878.8
Food	438.6	439.0	439.4	440.6	441.2	442.4	443.2	443.0	443.9	446.0	-1.1	-0.3	0.7	441.2	440.1	443.1
Clothing & Shoes	158.6	156.7	154.7	157.8	156.6	157.1	156.4	157.5	156.6	156.9	0.6	-1.9	0.3	159.5	156.5	156.9
Gas & Oil	101.5	102.2	100.5	100.3	100.5	100.1	100.3	100.5	100.2	100.0	0.3	-0.2	-0.6	101.1	100.9	100.3
Fuel Oil & Coal	21.5	21.7	21.1	21.3	21.2	21.4	21.3	21.5	21.3	21.2	-1.6	1.2	0.2	21.1	21.3	21.4
Other	154.4	154.5	156.2	157.5	158.1	157.3	157.5	156.3	157.2	157.6	1.7	0.8	0.3	155.3	156.6	157.1
Services	1245.6	1257.7	1268.1	1276.4	1285.1	1293.6	1301.5	1306.9	1314.8	1323.6	3.5	3.3	2.5	1230.9	1271.8	1304.2
Housing	362.2	364.5	366.8	369.1	371.4	373.7	376.0	378.3	380.5	382.8	2.5	2.6	2.5	358.8	368.0	377.1
Household Operations Gas & Electric	79.3	80.8	81.1	81.0	81.5	82.1	82.5	82.2	82.5	82.9	1.1	4.3	1.5	77.8	81.1	82.3
Household Operations Other	77.3	78.4	78.9	79.0	79.5	80.1	80.5	80.7	81.0	81.3	2.0	4.1	2.1	75.9	79.0	80.6
Transportation	89.5	90.7	91.7	92.5	93.1	93.6	94.0	93.8	94.0	94.4	4.4	4.4	2.0	88.1	92.0	93.9
Medical Care	267.2	269.6	272.3	275.0	277.6	280.0	282.5	284.6	287.3	289.8	4.5	3.9	3.6	263.3	273.6	283.6
Other	370.1	373.7	377.3	379.8	382.0	384.1	386.0	387.3	389.5	392.4	4.2	3.0	2.3	367.1	378.2	386.7

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Forecast of the Nation 1988III-1990II

ECONOMIC FORECASTING CENTER

Georgia State University
College of Business Administration
August 1988
Dr. Donald Ratajczak, Director

1973-1988

ECONOMIC FORECASTING CENTER

Dr. Donald Ratajczak, Director

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THE FEDERAL RESERVE'S FINE TUNING PROBABLY WILL NOT SUCCEED

Dr. Donald Ratajczak
Director
Economic Forecasting Center
Georgia State University

Summary

The Federal Reserve's attempt to slow economic growth to the rate of underlying capability before inflationary pressures become imbedded in cost structures probably will not succeed. First, the Federal Reserve was not aware that the economy already had been growing far above sustainable levels in 1987. Data revisions show that economic activity grew 5% during those four quarters. As a result, capacity constraints and employment constraints have approached rapidly. Even recent slowing to a growth rate of 3.1% in the second quarter cannot bring equanimity. Reduced inventory holdings rather than modest gains in final demand, which spurted 5.4%, accounted for that temporary pause. Second, orders already have ballooned because of the growth in economic activity. Such strong order backlogs are further intensifying employment and also increasing cost pressures. A recent announcement by IBM that it would increase prices for computer equipment by 3% to 5% indicates that capital goods inflation already is developing. Third, wages in the service economy have been growing rapidly, with hourly earnings up more than 5% from the previous year and growing at more than a 6% rate in the past three months. Complementary wage gains probably insure accelerating wage cost pressures into next year, even if the economy slows now.

However, the Federal Reserve's effort will raise interest rates while the strong economy will attract foreign investors. This, in turn, will preserve a relatively stable to strengthening dollar, which eventually will reverse the strong competitive advantage currently faced in world markets by American producers. Export growth will slow from its torrid 17% rate in 1988 to a more modest 6% gain in 1989 and even slower rates of expansion in 1990. When higher interest rates finally slow investment activity, and housing will have been slowing for some time by then, the next recession will be around the corner. Our assumptions indicate that a recession probably will begin in the early months of 1990, although it should be mild.

Consumer spending is stronger than had been expected, but is slowing its rate of growth. Purchases of nondurables have been flat for two years. Although automobile sales have increased this year, total unit sales remain nearly a million below cyclical peaks. As a result, a dramatic slump from these lower levels is less likely. The drought probably will take 0.5 percentage points from GNP in 1988 as a result of reduced agricultural production. Reduced meat supplies then will cause a 0.5% additional rise in prices in 1989.

However, tightening in labor markets will be more significant in causing the consumer price index to spurt from a 4.0% increase this year to a 5.1% gain next year. Hourly labor costs, which rose 2.9% in 1987 and are currently rising at an annual rate of 4.5%, are projected to increase by 6% early in 1990. Reduced employment and higher unemployment rates at that time will prevent even more rapid wage cost gains from developing.

Higher inflation and attempts by the Federal Reserve to prevent a serious surge of inflationary pressures will be reflected in interest rates. While both short- and long-term rates are expected to rise, short-term rates should rise more rapidly. Indeed, the yield curve probably will invert by the middle of 1989. Moreover, long-term government bonds probably will yield more than 10% before peaking by mid-1989. Mortgage rates will move over 11% before economic weakness causes interest rates to fall.

The onslaught of rising interest rates should cause a decline in stock market values by the early months of 1989. When it becomes apparent that the ensuing recession will be mild, however, equity values are expected to rebound as interest rates again decline.

Data Revisions

Economic activity grew more briskly in 1987 than originally expected according to the traditional three-year data revisions. As a result, GNP was 1.4 percentage points higher in the first quarter of 1988 than originally expected. Most of this discrepancy was in trade accounts, where inflation adjusted exports were nearly $20 billion higher than originally expected. Consumption also was stronger, with a nearly $20 billion upward revision in non-durable goods and a $10 billion increase in the service component. Partially offsetting this was a $10 billion downward revision in spending on producers' durables. Thus, the consumer was even a greater factor in economic growth while investment activity was even weaker than originally anticipated. On the other hand, except for in the trade accounts, the revisions were not dramatic.

On the income side, most of the data revisions were in wages and salaries, which were originally understated by more than $50 billion. The biggest errors were in the distributive and service industries. On the other hand, business and professional proprietors' income originally was overstated. Interest income, which almost always is understated, once again sustained a significant upward adjustment. Corporate profitability also was adjusted upward. This increased the return to capital. As a result, our measures of justifiable equity value were increased slightly. Nevertheless, stock market values in 1987 clearly far exceeded what could be justified on economic grounds. As both wages and consumption were revised upward, the level of savings was only marginally adjusted from previous reports. However, higher income levels led to a lower savings rate than had previously been reported. Similarly, the tax rate was lowered as a result of a more than $50 billion increase in personal income estimates.

Rapid economic growth in 1987 clearly was a factor in contributing to rising material prices at that time. Thus, the momentum of economic activity as well as the level of resource utilization clearly contributed to near-term inflationary pressures. Because the Federal Reserve was unaware of the rapid rate of economic expansion, as were we all, it was not able to follow an appropriate inflationary policy as is clearly indicated by current statistics.

However, anti-inflationary vigilance must be intensified now that resource utilization is even higher than it was a year ago.

In general, the data revisions did not alter our previous views of economic conditions, except for the rapidity of economic expansion during the past year.

Outlook

The remarkable surge in export activity is expected to continue through 1988. However, little further weakening in the dollar's value will substantially slow export growth next year and beyond. Further improvements in the trade account then will need to be accomplished through reduced import purchases.

However, the rapid rate of growth in industrial activity has led to capacity strains that clearly have stimulated investment activity. Moreover, previously cautious manufacturing purchasers are now scrambling to fill their parts pipelines. As a result, inventory expansion should continue strong through next year. Also, the order books are full, suggesting that strong gains will develop in capital spending this year. With so much economic strength developing, the economy's inflationary bias is intensifying. In turn, greater investment activity and higher inflation has been pushing interest rates upward. Housing clearly has begun to suffer.

Although wages are rising, price increases resulting from previous import price gains along with the impact that the drought is having upon food costs will generate even more inflation than can be captured by higher wage demands. As a result, consumer activity is expected to remain sluggish.

When economic growth slows, inventories are expected to rapidly become excessive. At that time, increasing layoffs will cause consumers to retrench. Although the economic slowing that is expected to begin in the latter part of 1989 will reduce interest rates, the interest-sensitive parts of the economy will be slow to respond. Thus, a recession early in 1990 is becoming increasingly likely.

Little has been said about the impact the election will have on the economy. Unfortunately, detailed economic policy differences are not as apparent as in previous campaigns. Vice President Bush acknowledges that taxes will not be increased while capital gains taxes are proposed to be reduced. Governor Dukakis is not as willing to endorse the current tax structure. However, he fought successfully to eliminate a plank in the Democratic platform that spelled out specific tax increases.

While a Dukakis administration probably is more likely to raise taxes in an attempt to reduce deficit financing pressures, the inflation-fighting restraints that the Federal Reserve already will have put in place probably will restrain any Dukakis administration from imposing tax increases. On the other hand, some excise tax increases were assumed.

Although a recession is not inevitable in 1990, the rapid growth that already has developed virtually requires the Federal Reserve to initiate credit restraint to forestall any significant acceleration of inflation. This restraint, in turn, will slow the investment boom, squeeze housing activity, and

even slow the growth of consumer spending. Also, high interest rates and rapid economic growth will prevent the dollar from falling further against other currencies. As export opportunities grow more slowly, imbalances between production and final sales will intensify.

Although interest rates are expected to rise from current levels, the perception that the Federal Reserve is trying to prevent intensifying inflation will not be lost on long-term investors. They will remain more willing to hold bonds if the Federal Reserve continues to pursue an inflation-restraining policy. Therefore, long-term bond investors probably will suffer no loss of principle if they are willing to wait two years. In the meantime, yields will be satisfactory. In the next twelve months, however, total rates of return on government and corporate bonds will be only a couple of percentage points. This suggests that the relatively high yields in short-term instruments may be preferred. Certainly, if our analysis is correct, stock market values will not be improving over the next year. As the dollar is expected to weaken slightly from current levels, investments in foreign assets may continue to do well. However, differential interest rate yields may provide no higher returns abroad than in American financial assets.

Assumptions

Because of the increased likelihood that Federal Reserve restraint will be needed to reduce inflationary risk and that restraint may lead to a recession, a significant deficit reduction package no longer is anticipated for the new administration. However, excise taxes probably will be enacted to aid the deficit reduction effort while substantial restraint is expected in defense spending. On the other hand, increased medical programs will significantly increase grants-in-aid and also add to inflationary pressures in the medical sector. At the present time, no differences have been assumed in economic policy between the two administrations because economic differences have not yet been clearly delineated in the campaign.

Although some evidence of Federal Reserve restraint is apparent in the slowing of the monetary base as shown in table six, the degree of Federal Reserve restraint is not expected to be dramatic. Rather, the Federal Reserve is expected to try to fine tune economic growth, hoping to achieve moderate but sustainable growth before inflationary pressures become too intense. This effort is expected to fail, requiring more stringent Federal Reserve activity in the latter half of 1989 which will lead to a 1990 recession. However, even though we assume that the Federal Reserve effort will fail, it is a worthy effort. Unfortunately, better GNP data would have informed the Federal Reserve that they needed to be more restrained last year than they actually were. It is unlikely that the Federal Reserve will try to make up for lost ground during an election year.

Many of the budgetary and monetary assumptions are contained in tables five and six.

Some of the wage assumptions for government include a 4.3% wage increase for all government personnel in 1989 and a similar gain in 1990. Wage gains at the state and local level are expected to average 5.5% in each of the next two years. While some stringency is expected, anticipated acceleration in grants-in-aid to state and local governments may ease the budgetary stress currently

faced there. Operating deficits are expected to persist at the state and local level, but they are projected to narrow, at least until the recession begins in 1990.

Other forecast assumptions are as follows:

a. Cost-of-living adjustments for government programs are not expected to be altered in the next administration. Increases of 4.0% and 5.0% are expected in January 1989 and 1990 respectively.

b. Oil imports are expected to increase by 9.5% in 1988 and by a further 2% in 1989. No import fees are expected, but rising gasoline taxes are incorporated. OPEC is expected to increase its ability to monitor production, leading to oil prices in excess of $19 per barrel in 1989.

c. No substantial changes in trade restraint were assumed. World trade was expected to grow 4.5% in 1988 and 4% in 1989. Growth was then expected to slow to 3% in 1990.

d. The wage base for social security was assumed to be $47,100 in 1988 and $49,500 in 1989. Attempts to require medicare taxes on all earned income were not expected to succeed.

e. No significant work stoppages were assumed.

f. A return to normal weather conditions was expected in 1989. Unlike 1988, when carryover is sufficient to meet the shortfall in corn supplies, a renewed drought in 1989 would have substantial repercussions. However, longer-term meteorological projections indicate a return to more normal weather conditions.

Conclusion

Data revisions show that the economy has been growing at a much faster pace than had been assumed. This rapid expansion has largely been the result of a surge in export activity. However, such strength in exports has spilled over into increasing need for plant and equipment. As a result, industrial construction is beginning to rise and orders for capital goods are growing sharply. Indeed, after inflation, purchases of producers' durables may grow more than 14% this year. Even with some consumer restraint, rapid growth in employment, (more than 3.8 million jobs in the past year), has added to consumer spending. In short, the economy is in danger of overheating.

The Federal Reserve has been trying to restrain inflationary forces, but the attempt has been cautious. Until now, the Federal Reserve probably felt that slowing the rate of growth to the rate of underlying growth capability was not a difficult task. It is now clear that such a slowing in growth will be difficult. In the second quarter, final demand expanded 5.4%. This suggests that inventories need to be rebuilt before industrial growth can slow.

Rapid economic growth, increasing investment needs, and a moderate degree of Federal Reserve restraint will lead to significantly higher short-term interest rates over the next twelve months. The prime rate is expected to climb to nearly 11%. Long-term government bonds probably will yield more than 10%

early in 1989 before economic slowing and more moderate inflationary pressures as a result of the slowing will provide relief. By the middle of 1989, short-term interest rates are expected to yield more than long-term rates.

Although we no longer are assuming a significant deficit reduction package will be presented by the next administration, for the risk of inducing a recession will be great with such a package, a recession early in 1990 now appears likely nonetheless. However, the good part of this outlook is that any developing recession probably will be relatively mild, as purchases of consumer durables already have slipped from peak levels and housing activity has significantly slowed from previously excessive rates. Therefore, the especially vulnerable parts of the economy already have climbed partially down the hill and do not have as far to fall. Of course, if the dollar strengthens sharply from current levels, the spurt of export activity will be quashed and the danger of a significant recession early in the next decade will emerge. At the present time, however, only a mild correction in an effort to slow inflationary pressures seems to be in store for the economy.

Table 1.

Georgia State University
College of Business Administration
Economic Forecasting Center
August 1988

U.S. Expenditures for 1988-I and 1988-II with Forecasts for 1988-III through 1990-II

		1988				1989				1990		Percent Change			Annual		
		I	II	III	IV	I	II	III	IV	I	II	86-87	87-88	88-89	1987	1988	1989
1.	Personal Consumption Expenditures	3128.1	3186.8	3242.1	3290.9	3347.5	3407.0	3463.1	3509.3	3567.6	3631.3	7.3	6.6	6.8	3012.1	3212.0	3431.7
2.	Autos and Parts	202.2	206.8	210.4	212.1	214.1	215.9	214.0	212.6	216.6	221.7	-0.3	6.2	3.0	195.8	207.9	214.2
3.	Other Durable Goods	235.6	240.1	225.2	245.1	246.5	246.8	247.7	247.1	247.5	249.0	7.6	4.6	4.5	226.1	236.5	247.0
4.	Nondurable Goods	1016.2	1030.3	1043.2	1056.1	1071.1	1091.2	1109.9	1123.1	1137.5	1153.1	5.8	3.9	6.0	998.0	1036.5	1098.8
5.	Services	1674.1	1709.6	1745.3	1777.6	1815.8	1853.1	1891.5	1926.5	1966.0	2007.5	9.3	8.4	8.4	1592.3	1726.6	1871.7
6.	Gross Private Domestic Investment	763.4	756.5	755.9	774.4	785.2	799.5	800.5	811.7	799.7	776.4	7.0	7.0	4.8	712.9	762.6	799.2
7.	Residential Struct.	226.6	228.1	227.5	230.2	231.2	232.7	232.6	229.8	231.6	243.5	4.8	0.5	1.5	226.9	228.1	231.6
8.	Other Structures	140.1	145.3	149.2	150.1	152.7	154.3	156.5	158.9	161.0	161.7	0.7	4.8	6.4	139.5	146.2	155.6
9.	Producers' Durables	331.3	340.1	346.9	352.5	357.0	361.7	364.5	367.7	372.0	372.0	4.0	11.5	5.8	307.3	342.7	362.7
10.	Change in Inventories	65.3	43.0	32.3	41.6	44.3	50.8	46.9	55.3	35.1	-0.8	---	---	---	39.2	45.6	49.3
11.	Net Export of Goods and Services	-112.1	-90.6	-80.1	-80.4	-77.0	-70.7	-62.0	-64.9	-58.5	-52.7	---	---	---	-123.1	-90.8	-68.7
12.	Exports	487.8	501.1	523.0	535.8	551.5	561.4	579.7	588.4	602.0	612.5	13.1	19.6	11.4	428.1	511.9	570.3
13.	Imports	599.9	591.7	603.1	616.2	628.5	632.1	641.7	653.3	660.5	665.2	14.1	9.4	6.0	551.1	602.7	638.9
14.	Government Purchases of Goods and Services	945.2	954.2	969.4	980.9	1010.0	1023.4	1039.5	1056.0	1072.4	1086.1	6.1	4.1	7.3	924.8	962.4	1032.2
15.	Federal	377.7	375.2	382.1	387.0	406.6	411.9	419.8	427.4	434.7	438.6	4.3	-0.4	9.4	382.0	380.5	416.4
16.	National Defense	298.4	295.7	298.2	300.4	307.8	310.5	313.1	316.0	321.2	323.5	6.4	1.0	4.6	295.3	298.2	311.9
17.	Other	79.3	79.5	83.9	86.6	98.8	101.4	106.7	111.4	113.5	115.1	-2.3	-5.0	27.0	86.7	82.3	104.6
18.	State and Local	567.5	579.0	587.3	593.9	603.4	611.5	619.7	628.6	637.7	647.8	7.5	7.2	5.8	542.8	581.9	615.8
19.	Gross National Product	4724.5	4806.9	4887.3	4965.8	5065.7	5159.2	5241.1	5312.1	5381.2	5441.1	6.8	7.1	7.2	4526.7	4846.1	5194.5
20.	Amount of Change	61.7	82.4	80.4	78.5	99.9	93.5	81.9	71.0	69.1	59.9	---	---	---	286.4	319.4	348.4
21.	% Change*	5.4	7.2	6.9	6.6	8.3	7.6	6.5	5.5	5.3	4.5	---	---	---	6.8	7.1	7.2
22.	% Real Change*	3.4	3.1	2.8	2.6	3.6	2.6	2.0	1.1	0.2	-0.8	---	---	---	3.4	4.0	2.7
23.	% Price Change*	1.7	4.1	4.0	3.7	4.6	4.8	4.4	4.5	5.1	5.4	---	---	---	3.2	3.0	4.3
24.	Implicit Price Deflator	119.4	120.6	121.8	122.9	124.3	125.8	127.1	128.5	130.1	131.8	3.2	3.0	4.3	117.7	121.2	126.4
25.	Change in Final Sales	68.5	104.7	91.1	69.2	97.2	87.0	85.8	62.6	89.3	95.8	---	---	---	262.8	313.1	344.6
26.	GNP in 1982 Dollars	3956.1	3986.3	4013.9	4040.2	4075.9	4102.6	4123.0	4134.2	4136.3	4127.6	3.4	4.0	2.7	3847.0	3999.1	4108.9

Table 2.

Georgia State University
College of Business Administration
Economic Forecasting Center
August 1988

U.S. Real Expenditures for 1988-I and 1988-II with Forecasts for 1988-III through 1990-II

		1988				1989				1990		Percent Change			Annual		
		I	II	III	IV	I	II	III	IV	I	II	86-87	87-88	88-89	1987	1988	1989
1.	Personal Consumption	2559.8	2574.2	2591.7	2602.2	2612.9	2618.7	2627.3	2630.2	2644.6	2655.7	2.7	2.4	1.6	2520.9	2582.0	2622.3
2.	Durable Goods	401.1	408.1	411.1	411.3	411.8	410.7	406.6	402.2	404.6	407.5	1.5	4.3	-0.0	390.9	407.9	407.8
3.	Nondurable Goods	892.7	888.2	891.2	892.3	892.8	890.9	895.0	894.7	898.5	897.2	1.3	0.1	0.3	890.5	891.1	893.4
4.	Services	1265.9	1278.0	1289.4	1298.6	1308.3	1317.1	1325.7	1333.3	1341.5	1351.0	4.1	3.5	3.0	1239.5	1283.0	1321.1
5.	Gross Private Domestic Invest.	728.9	725.0	721.6	735.3	740.8	749.9	745.8	750.7	734.2	709.6	4.8	7.8	2.6	674.8	727.7	746.8
6.	Residential Structures	189.5	190.8	189.4	190.1	189.5	189.5	187.7	183.6	183.3	190.5	0.1	-2.7	-1.3	195.2	190.0	187.6
7.	Other Structures	124.0	127.5	129.7	129.3	130.2	130.1	130.6	131.4	131.7	131.0	-2.9	1.7	2.3	125.5	127.6	130.6
8.	Producers' Durables	349.4	361.7	370.6	376.2	380.6	384.4	386.5	388.3	390.4	390.0	5.2	14.0	5.6	319.6	364.5	385.0
9.	Change in Inventories	66.0	45.0	31.9	39.7	40.5	45.9	41.0	47.4	28.8	-1.9	---	---	---	34.4	45.7	43.7
10.	Net Export of Goods and Services	-109.0	-90.1	-81.8	-82.7	-75.1	-64.9	-53.9	-56.6	-51.8	-46.0	---	---	---	-128.9	-90.9	-62.6
11.	Exports	486.2	495.6	511.2	516.7	525.2	528.6	540.3	543.3	550.8	553.8	13.1	17.4	6.4	427.8	502.4	534.4
12.	Imports	595.1	585.7	593.0	599.4	600.3	593.9	594.2	599.9	602.6	599.8	7.9	6.6	0.6	556.7	593.3	597.1
13.	Gov't Purchases of Goods & Services	776.4	777.2	782.4	785.4	797.3	798.9	803.8	809.9	809.3	808.3	2.6	0.0	2.8	780.2	780.4	802.5
14.	Federal	327.8	325.3	329.7	332.2	342.6	343.2	347.6	352.5	350.9	349.1	1.7	-3.0	5.4	339.0	328.8	346.5
15.	State & Local	448.7	451.9	452.7	453.2	454.7	455.7	456.2	457.4	458.4	459.2	3.3	2.4	1.0	441.2	451.6	456.0
16.	Gross National Product	3956.1	3986.3	4013.9	4040.2	4075.9	4102.6	4123.0	4134.2	4136.3	4127.6	3.4	4.0	2.7	3847.0	3999.1	4108.9
17.	Final Demand	3890.1	3941.3	3982.0	4000.5	4035.4	4056.7	4082.0	4086.8	4107.5	4129.5	2.9	3.7	2.8	3812.6	3953.5	4065.2
18.	Private Domestic Product	3563.8	3594.0	3620.8	3647.3	3683.2	3710.3	3731.2	3742.2	3745.3	3735.5	3.7	4.5	3.1	3451.5	3606.5	3716.7

Table 3.

Georgia State University
College of Business Administration
Economic Forecasting Center
August 1988

Income Related U.S. GNP Components for 1988-I and 1988-II with Forecasts for 1988-III through 1990-II

		1988				1989				1990		Percent Change			Annual		
		I	II	III	IV	I	II	III	IV	I	II	86-87	87-88	88-89	1987	1988	1989
1.	Compensation of Employees	2816.4	2872.6	2924.1	2966.4	3031.4	3078.3	3129.5	3172.9	3238.8	3294.7	7.0	7.9	7.2	2683.4	2894.9	3103.0
2.	Wage and Salary	2358.7	2408.7	2453.3	2489.9	2543.4	2583.7	2627.5	2664.2	2715.5	2763.1	7.4	8.0	7.3	2248.4	2427.7	2604.7
3.	Manufacturing	509.6	517.1	524.9	531.5	539.7	545.5	551.7	557.3	565.8	571.1	3.6	6.2	5.3	490.3	520.8	548.6
4.	Other Commodity-Producing Industries	166.4	171.6	173.6	173.0	176.0	178.2	180.1	178.7	180.9	185.7	4.7	7.3	4.1	159.5	171.2	178.3
5.	Distributive Industries	558.2	572.0	583.7	593.9	604.9	611.7	621.9	631.2	642.0	651.2	6.6	8.5	7.0	531.7	577.0	617.4
6.	Service Industries	687.4	705.0	722.2	738.7	759.5	778.8	799.7	818.2	837.5	857.8	12.3	10.3	10.6	646.8	713.3	789.1
7.	Military	75.5	75.8	75.7	76.2	78.5	79.0	78.4	78.0	80.3	81.1	4.3	3.6	3.5	73.2	75.8	78.5
8.	Civilian Government	361.6	367.2	373.2	376.6	384.8	390.5	395.7	400.8	409.0	416.2	7.2	6.6	6.3	346.9	369.7	393.0
9.	Supplements	457.7	463.9	470.8	476.6	488.0	494.6	502.0	508.7	523.3	531.6	5.3	7.4	6.7	435.0	467.3	498.3
10.	Proprietors' Income	323.9	322.6	327.2	337.7	341.2	342.3	348.5	352.0	347.6	343.7	9.2	4.8	5.5	313.0	327.9	346.0
11.	Business & Professional	279.2	284.6	291.5	293.4	297.3	300.8	302.9	304.4	304.9	304.2	7.9	6.4	4.9	270.0	287.2	301.4
12.	Farm	44.7	38.0	35.7	44.3	43.9	41.5	45.6	47.6	42.7	39.5	18.1	-5.4	9.8	43.0	40.7	44.7
13.	Rental Income	20.5	17.9	18.8	19.4	19.0	19.6	20.1	20.4	19.7	19.3	48.8	3.8	3.3	18.5	19.2	19.8
14.	Net Interest	373.9	382.1	393.4	401.1	408.6	418.9	426.7	434.5	442.6	447.5	6.5	9.6	8.9	353.6	387.6	422.2
15.	Corporate Profits Adj.	316.2	323.9	326.3	329.8	331.9	335.8	340.3	336.1	328.2	321.2	3.8	4.4	3.7	310.4	324.1	336.0
16.	National Income	3850.8	3919.1	3989.8	4054.5	4132.1	4194.9	4265.1	4315.9	4376.9	4426.4	7.0	7.5	6.9	3678.7	3953.6	4227.0
17.	Indirect Business Tax	379.4	385.5	391.8	397.8	404.2	410.6	418.0	424.3	432.1	440.2	5.1	6.1	6.6	366.2	388.6	414.3
18.	Capital Consumption Adj.	-22.5	-20.9	-17.5	-14.3	-10.5	-7.1	-3.5	-0.3	4.4	8.2	---	---	---	-27.6	-18.8	-5.4
19.	Capital Consumption Alw.	520.8	524.1	527.8	531.2	536.8	541.4	547.1	553.0	557.6	561.3	3.9	3.6	3.5	507.6	526.0	544.6
20.	Business Transfers	29.6	30.3	30.9	31.5	32.2	32.9	33.6	34.2	34.9	35.6	12.2	8.6	8.7	28.2	30.6	33.2
21.	Net Govt. Subsidies	-18.6	-18.0	-14.6	-11.6	-9.1	-7.6	-8.0	-9.5	-10.1	-9.2	45.2	-14.2	-45.5	-18.3	-15.7	-8.6
22.	Statistical Discrepancy	-12.8	-13.2	-20.9	-23.3	-20.0	-5.9	-11.2	-5.5	-14.6	-21.4	---	---	---	-7.0	-17.6	-10.7
23.	Gross National Product	4724.5	4806.9	4887.3	4965.8	5065.7	5159.2	5241.1	5312.1	5381.2	5441.1	6.8	7.1	7.2	4526.7	4846.1	5194.5

Table 4.

Georgia State University
College of Business Administration
Economic Forecasting Center
August 1988

Derivation of U.S. Personal Income for 1988-I and 1988-II with Forecasts for 1988-III through 1990-II

	1988				1989				1990		Percent Change			Annual		
	I	II	III	IV	I	II	III	IV	I	II	86-87	87-88	88-89	1987	1988	1989
1. National Income	3850.8	3919.1	3989.8	4054.5	4132.1	4194.9	4265.1	4315.9	4376.9	4426.4	7.0	7.5	6.9	3678.7	3953.6	4227.0
2. Less: Corp. Profits Adj.	316.2	323.9	326.3	329.8	331.9	335.8	340.3	336.1	328.2	321.2	3.8	4.4	3.7	310.4	324.1	336.0
3. Social Insurance	433.3	440.8	447.9	453.0	469.8	475.5	482.5	488.2	509.2	517.6	5.6	11.2	7.9	399.1	443.8	479.0
4. Plus: Gov't Transfers	546.7	552.7	556.4	560.9	576.3	582.9	587.7	592.5	610.9	618.3	5.0	6.4	5.5	520.6	554.2	584.9
5. Old Age, Survivors, etc.	298.1	300.0	301.7	303.8	315.3	318.0	319.8	321.6	333.9	336.4	5.1	6.4	5.9	282.9	300.9	318.7
6. Unemployment Benefits	13.9	13.3	13.2	12.7	11.7	11.6	11.1	11.4	11.9	13.0	-10.3	-9.2	-13.7	14.6	13.3	11.5
7. Veterans' Benefits	17.0	17.1	17.0	17.1	17.3	17.4	17.4	17.5	17.8	17.8	-0.7	2.6	2.1	16.6	17.1	17.4
8. Employees' Retirement	80.4	82.4	83.8	84.7	86.9	88.3	89.6	90.5	92.9	94.3	6.5	9.4	7.2	75.7	82.8	88.8
9. A.F.D.C.	16.9	17.4	17.3	17.5	17.6	17.8	18.0	18.1	18.4	18.6	2.9	3.3	3.5	16.7	17.3	17.9
10. Other	120.4	122.4	123.7	125.1	127.5	129.6	131.8	133.4	136.0	138.2	0.1	18.5	6.2	103.8	122.9	130.6
11. Business Transfers	29.6	30.3	30.9	31.5	32.2	32.9	33.6	34.2	34.9	35.6	12.2	8.6	8.7	28.2	30.6	33.2
12. Interest Transfers	180.3	184.7	188.4	192.2	193.9	198.8	202.5	205.1	205.2	207.8	3.7	7.5	7.3	173.4	186.4	200.1
13. Personal Dividends	93.5	95.0	96.3	97.5	98.6	99.9	101.5	102.9	104.3	105.6	7.0	7.9	5.4	88.6	95.6	100.7
14. Equals: Personal Income	3951.4	4017.2	4087.3	4153.5	4231.5	4297.9	4367.6	4426.3	4494.8	4555.0	7.0	7.2	6.9	3780.0	4052.4	4330.8
15. Less: Personal Tax Payments	575.8	600.6	607.1	616.2	626.2	642.2	657.8	670.4	670.3	681.8	11.5	5.2	8.2	570.4	599.9	649.2
16. Equals: Disposable Personal Income	3375.6	3416.5	3480.2	3537.3	3605.3	3655.7	3709.8	3755.9	3824.5	3873.2	6.3	7.6	6.6	3209.7	3452.4	3681.7
17. Less: Consumption	3128.1	3186.8	3242.1	3290.9	3347.5	3407.0	3463.1	3509.3	3567.6	3631.3	7.3	6.6	6.8	3012.1	3212.0	3431.7
18. Less: Other Outlays	97.6	99.1	100.6	102.2	103.9	105.4	107.0	108.6	110.1	111.4	3.2	6.9	6.4	93.4	99.9	106.2
19. Equals: Personal Savings	149.9	130.6	137.5	144.2	153.9	143.3	139.7	138.0	146.8	130.5	-14.4	34.9	2.3	104.2	140.6	143.7
20. Savings Rate (%)	4.4	3.8	4.0	4.1	4.3	3.9	3.8	3.7	3.8	3.4	-20.7	25.4	-3.7	3.3	4.1	3.9

Table 5.

Georgia State University
College of Business Administration
Economic Forecasting Center
August 1988

U.S. Federal Government Activity for 1988-I and 1988-II with Forecasts for 1988-III through 1990-II

	1988				1989				1990		Percent Change			Annual		
	I	II	III	IV	I	II	III	IV	I	II	86-87	87-88	88-89	1987	1988	1989
1. Government Receipts	951.0	993.3	1000.9	1012.4	1035.9	1058.5	1079.9	1092.3	1106.2	1123.5	10.6	8.0	7.8	916.5	989.4	1066.7
2. Personal Tax & Non-Tax	404.6	424.7	426.3	431.6	436.9	448.7	459.9	468.6	464.4	472.3	12.2	4.0	7.5	405.6	421.8	453.5
3. Corporate Profits Tax	107.2	122.4	121.3	122.2	124.3	129.9	132.0	129.6	126.2	126.8	26.1	11.8	9.0	105.8	118.3	129.0
4. Indirect Business Tax	55.9	56.1	56.8	57.5	58.3	58.6	60.4	61.7	63.6	65.4	6.4	4.7	5.6	54.1	56.6	59.8
5. Contributions for Social Security	383.4	390.1	396.5	401.1	416.4	421.3	427.6	432.4	452.0	459.0	5.7	11.9	8.1	351.0	392.8	424.4
6. Government Expenditures	1106.1	1104.9	1114.7	1129.0	1156.9	1170.2	1186.9	1207.0	1229.3	1240.2	3.9	3.7	6.0	1074.2	1113.7	1180.3
7. Purchases of Goods and Services	377.7	375.2	382.1	387.0	406.6	411.9	419.8	427.4	434.7	438.6	4.3	-0.4	9.4	382.0	380.5	416.4
8. Defense	298.4	295.7	298.2	300.4	307.8	310.5	313.1	316.0	321.2	323.5	6.4	1.0	4.6	295.1	298.2	311.9
9. Durables	83.8	83.5	85.2	85.9	87.6	89.2	90.5	91.3	91.7	91.5	7.6	-5.8	6.0	89.8	84.6	89.7
10. Nondurables	10.8	10.2	10.4	10.6	10.9	11.3	11.5	11.6	11.9	12.2	-5.2	0.0	7.9	10.5	10.5	11.3
11. Military Compensation	75.5	75.8	75.7	76.2	78.5	79.0	78.4	78.0	80.3	81.1	4.3	3.6	3.5	73.2	75.8	78.5
12. Civilian Compensation	37.2	37.4	37.5	37.5	39.1	39.5	39.4	39.5	41.2	41.9	5.5	4.7	5.3	35.7	37.4	39.4
13. Other Services	84.6	82.0	82.6	83.5	84.8	84.5	86.2	88.4	89.0	89.7	9.0	5.4	3.4	78.9	83.2	86.0
14. Structures	6.6	6.6	6.8	6.7	6.9	7.0	7.1	7.2	7.1	7.1	9.1	-7.6	5.6	7.2	6.7	7.1
15. Nondefense	79.3	79.5	83.9	86.6	98.8	101.4	106.7	111.4	113.5	115.1	-2.0	-5.0	27.0	86.7	82.3	104.6
16. Durables	4.6	4.9	5.2	5.3	5.5	5.6	5.6	5.8	5.9	5.9	0.6	20.5	12.5	4.2	5.0	5.6
Nondurables	-9.1	-10.4	-8.0	-5.1	4.6	5.6	10.1	13.6	13.0	13.0	---	---	---	3.2	-8.2	8.5
17. CCC Inventory Change	-17.5	-17.8	-15.6	-13.1	-3.4	-2.5	1.8	5.3	4.6	4.5	---	---	---	-3.4	-16.0	0.3
18. Other Nondurables	8.4	7.4	7.6	8.0	8.0	8.1	8.3	8.3	8.4	8.5	14.0	20.8	4.1	6.5	7.9	8.2
19. Compensation	44.0	44.3	44.9	44.3	46.1	46.7	46.8	47.2	49.2	50.0	6.6	5.4	5.2	42.1	44.4	46.7
20. Other Services	32.3	33.1	34.4	34.1	34.5	35.2	35.7	36.3	37.0	37.6	9.0	16.3	5.8	28.8	33.5	35.4
21. Structures	7.5	7.7	7.9	8.0	8.1	8.3	8.5	8.5	8.4	8.6	11.5	-8.3	7.4	8.5	7.8	8.4
22. Transfer Payments	434.4	437.1	438.1	445.3	455.2	457.9	460.5	467.7	481.2	485.4	3.6	5.9	4.9	414.2	438.7	460.3
23. Grants-in-Aid to State and Local Governments	111.1	106.8	108.3	109.5	108.8	110.4	112.1	112.9	113.6	114.8	-3.9	6.1	2.0	102.7	108.9	111.1
24. Net Interest Paid	149.9	153.0	156.7	160.5	161.8	166.8	170.7	173.5	173.4	175.6	5.6	8.4	8.5	143.0	155.0	168.2
25. Deficit of Government Enterprises	33.0	32.8	29.5	26.7	24.5	23.2	23.8	25.5	26.4	25.8	26.0	-5.8	-20.5	32.4	30.5	24.3
26. Federal Surplus	-155.1	-111.6	-113.8	-116.6	-121.0	-111.7	-107.0	-114.7	-123.1	-116.7	---	---	---	-157.8	-124.3	-113.6
27. Federal Debt Held by Individuals	1779.2	1776.6	1797.7	1825.9	1861.2	1865.9	1882.1	1907.0	1938.4	1945.0	9.7	6.7	4.7	1681.7	1794.9	1879.1
28. Total Government Surplus	-95.7	-56.9	-55.6	-54.5	-57.7	-42.9	-34.3	-42.0	-49.1	-40.8	---	---	---	-104.8	-65.7	-44.2

Table 6.

Georgia State University
College of Business Administration
Economic Forecasting Center
August 1988

Selected Economic Variables of the U.S. Economy for 1988-I and 1988-II with Forecasts for 1988-III through 1990-II

	1988				1989				1990		Percent Change			Annual		
	I	II	III	IV	I	II	III	IV	I	II	86-87	87-88	88-89	1987	1988	1989
Private Economy																
1. Change in Private Hourly Wage Costs	3.3	4.4	4.6	4.3	6.0	4.6	5.5	4.9	6.5	5.5	2.9	4.5	5.0	14.13	14.76	15.50
2. Change in Output Per Worker Hour	1.5	-0.8	-0.1	1.0	1.2	1.1	0.3	0.2	-1.5	-2.6	0.8	0.9	0.7	22.057	22.255	22.402
3. Change in Implicit Unit Labor Costs	1.8	5.2	4.8	3.3	4.8	3.5	5.1	4.7	8.1	8.3	2.1	3.6	4.3	0.640	0.663	0.692
4. Change in Private Price Deflator	1.3	3.9	4.0	3.8	4.2	4.8	4.5	4.5	4.7	5.3	2.7	2.8	4.3	1.166	1.198	1.249
Prices																
5. Consumer Price Index	116.1	117.5	118.8	120.1	121.5	123.4	125.2	126.6	127.9	129.6	3.7	4.0	5.1	113.6	118.1	124.2
6. Industrial Commod. (Producer Price Index)	104.6	106.1	106.8	107.6	108.9	110.7	112.1	112.8	113.8	115.4	2.7	3.4	4.6	102.8	106.3	111.1
Corporate Economy																
7. After Tax Profit	149.4	147.5	147.3	147.9	151.3	158.8	162.0	154.5	147.0	149.9	8.1	3.6	5.8	143.0	148.0	156.7
8. Inventory Profits	-19.4	-29.8	-21.6	-18.1	-19.5	-28.4	-27.8	-19.2	-13.3	-22.5	---	----	---	-18.0	-22.2	-23.7
9. Genuine Profits	179.3	167.3	171.0	173.3	172.9	169.7	171.5	170.8	167.4	159.5	-6.4	-2.2	-0.9	176.6	172.7	171.2
10. Mean Closing Dow Jones	1990.8	2043.3	2096.3	2072.4	1964.2	1867.8	1928.5	2016.5	2140.2	2159.3	26.9	-9.9	-5.2	2276.0	2050.7	1944.3
11. Mean Closing NY Composite	145.19	148.72	152.14	151.93	147.65	140.69	143.57	148.14	151.68	152.07	18.8	-7.5	-3.0	161.7	149.5	145.0
Financial																
12. Monetary Base	272.3	276.3	282.3	287.2	292.5	297.6	302.7	307.4	312.5	317.9	8.9	7.2	7.3	260.6	279.5	300.1
13. Checkable Deposits	560.9	568.4	582.7	591.8	601.2	609.3	618.5	628.5	641.8	655.5	12.3	3.7	6.7	555.2	576.0	614.4
14. M1	760.4	772.1	789.6	801.9	814.9	827.0	840.0	853.3	870.3	888.2	11.2	5.0	6.8	744.0	781.0	833.8
15. Velocity of M1	6.183	6.198	6.163	6.165	6.191	6.214	6.216	6.203	6.163	6.104	-4.7	2.2	0.5	6.044	6.177	6.206
16. M2	2946.2	3004.5	3043.5	3094.0	3151.2	3207.2	3262.7	3318.4	3378.2	3430.2	6.5	5.6	7.0	2861.7	3022.0	3234.9
17. Velocity of M2	1.596	1.593	1.599	1.598	1.601	1.602	1.600	1.595	1.588	1.581	-0.3	1.6	0.2	1.571	1.596	1.600
18. Federal Funds	6.66	7.16	7.81	8.16	8.23	8.86	9.13	8.65	8.13	7.48	-2.2	11.9	17.1	6.66	7.45	8.72
19. Prime Rate	8.59	8.78	9.47	9.79	10.00	10.47	10.73	10.50	10.12	9.46	-1.6	11.6	13.9	8.20	9.16	10.43
20. 6 Month T-Bills	6.03	6.21	7.16	7.42	7.38	7.99	7.91	7.43	7.11	6.52	0.0	11.2	14.5	6.03	6.71	7.68
21. Seasoned AAA Corp.	9.56	9.90	10.08	10.23	10.46	10.93	10.90	10.52	10.07	9.57	3.9	6.0	7.7	9.38	9.94	10.70
22. FHA Mortgage Rates	10.08	10.37	10.42	10.71	10.93	11.21	11.32	11.03	10.51	9.99	0.3	1.9	7.0	10.21	10.40	11.12
Miscellaneous																
23. Housing Starts	1477	1474	1485	1463	1452	1441	1403	1337	1378	1445	-10.0	-9.7	-4.5	1634	1475	1408
24. Single Family Starts	1082	1061	1076	1043	1036	1020	996	927	952	996	-2.5	-7.9	-6.6	1157	1066	995
25. Unit Auto Sales	10.70	10.47	10.65	10.60	10.57	10.48	10.11	9.68	9.93	10.16	-12.6	4.4	-3.7	10.16	10.60	10.21
26. Civilian Employment	114.214	114.642	115.109	115.881	116.750	117.292	117.837	118.249	118.859	119.260	2.6	2.2	2.2	112.451	114.962	117.532
27. Unemployment Rate	5.7	5.4	5.4	5.3	5.0	5.0	4.9	4.9	5.0	5.2	-11.4	-11.7	-9.5	6.2	5.5	5.0
28. Industrial Production	134.5	136.0	137.3	138.6	140.0	141.3	141.6	141.5	140.6	138.9	3.7	5.2	3.3	129.8	136.6	141.1
29. Asset-Consumption Ratio	3.875	3.838	3.805	3.777	3.713	3.629	3.613	3.628	3.620	3.600	-1.1	-5.2	-4.7	4.034	3.824	3.646

Table 7.

Georgia State University
College of Business Administration
Economic Forecasting Center
August 1988

U. S. Foreign Trade Accounts for 1986 and 1987 with Forecasts for 1988 through 1989

	1986	1987	1988	1989	Percent Change 86-87	87-88	88-89
Exports of U.S. Merchandise	216629	252931	322212	366446	16.8	27.4	13.7
Food & Live Animals	17303	19179	25395	27903	10.8	32.4	9.9
Beverages & Tobacco	2920	3667	4736	5421	25.6	29.2	14.5
Crude Materials	17324	20416	25880	26420	17.9	26.8	2.1
Mineral Fuels	8115	7713	8444	10115	-4.9	9.5	19.8
Animal & Vegetable Oils	1015	981	1484	1438	-3.3	51.2	-3.1
Chemicals	22766	26411	31528	35538	16.0	19.4	12.7
Manufactured Goods	14005	17136	22531	26635	22.4	31.5	18.2
Machinery, Trans. Equipment	95290	108632	137738	156710	14.0	26.8	13.8
Miscellaneous Manufacturing	16654	19409	24050	28083	16.5	23.9	16.8
Commodities, n.e.c.	10986	20381	27441	30948	85.5	34.6	12.8
Foreign Merchandise	10928	9007	13265	17238	-17.6	47.3	30.0
Imports of Merchandise	382964	424072	452230	474237	10.7	6.6	4.9
Food & Live Animals	22395	22224	22100	23668	-0.8	-0.6	7.1
Beverages & Tobacco	4226	4461	4304	4313	5.6	-3.5	0.2
Crude Materials	11176	12299	14564	1600	10.0	18.4	9.9
Mineral Fuels	39838	46724	46319	54660	17.3	-0.9	18.0
Animal & Vegetable Oils	581	629	736	720	8.3	16.9	-2.2
Chemicals	15812	17037	21225	23963	7.7	24.6	12.9
Manufactured Goods	51700	56364	65606	70475	9.0	16.4	7.4
Machinery, Trans. Equipment	166240	182807	195490	199508	10.0	6.9	2.1
Miscellaneous Manufacturing	60079	69027	69447	68900	14.9	0.6	-0.8
Commodities, n.e.c.	15042	12500	12022	12033	-16.9	-3.8	0.1
Foreign Transactions							
Total Exports	378.5	428.1	511.9	570.3	13.1	19.6	11.4
Merchandise Exports	225.1	254.8	323.6	368.2	13.2	27.0	13.8
Factor Income	87.5	96.1	105.3	113.9	9.8	9.6	8.1
Other Services	65.9	77.2	83.0	88.2	17.1	7.5	6.2
Total Imports	482.8	551.1	602.7	638.9	14.1	9.4	6.0
Merchandise Imports	367.8	413.0	442.3	463.0	12.3	7.1	4.7
Factor Income	52.6	66.6	83.4	93.9	26.6	25.2	12.6
Other Services	62.5	71.5	77.0	82.0	14.4	7.8	6.5
Transfer	15.4	13.5	13.1	12.2	-12.2	-3.5	-6.3
Government Interest	22.6	24.1	26.7	29.0	6.4	10.9	8.5
Net Foreign Investment	-142.4	-160.6	-130.5	-109.8	---	---	---
Trade Weighted Value of Dollar (3773=100)	112.3	97.0	92.1	93.7	-13.6	-5.1	1.7

Table 8. Economic Forecasting Center August 1988

Implicit Price Deflators for Personal Consumption Expenditures for 1988-I and 1988-II with Forecasts for 1988-III through 1990-II

	1988				1989				1990		Percent Change			Annual		
	I	II	III	IV	I	II	III	IV	I	II	86-87	87-88	88-89	1987	1988	1989
Durable Goods	109.1	109.5	110.3	111.2	111.9	112.7	113.6	114.3	114.7	115.5	2.2	2.0	2.8	107.9	110.0	113.1
% Change	1.0	1.3	3.1	3.0	2.5	2.9	3.2	2.7	1.4	2.8						
Automobiles	116.5	116.6	117.7	118.8	119.7	121.1	122.1	123.3	123.8	124.7	3.2	2.2	3.5	114.9	117.4	121.6
% Change	0.6	0.3	3.6	4.0	2.9	4.8	3.5	3.9	1.5	3.0						
Furniture	98.3	98.6	98.9	99.2	99.3	99.2	99.6	99.6	99.4	99.6	0.5	0.6	0.7	98.2	98.8	99.4
% Change	-0.0	0.9	1.3	1.3	0.5	-0.5	1.7	-0.0	-1.0	1.0						
Other Durables	115.2	116.8	118.2	119.6	121.0	122.6	124.3	125.8	127.4	128.9	4.3	5.0	5.1	111.8	117.5	123.4
% Change	4.7	5.7	4.7	4.7	5.0	5.3	5.6	5.1	5.1	4.9						
Nondurables	113.8	116.0	117.1	118.4	120.0	122.5	124.0	125.5	126.6	128.5	4.4	3.8	5.7	112.1	116.3	123.0
% Change	0.5	7.8	3.7	4.5	5.6	8.6	5.1	5.0	3.5	6.2						
Food	118.7	120.6	122.2	123.6	125.4	127.6	129.3	131.4	132.7	134.7	4.5	3.8	5.9	116.9	121.3	128.4
% Change	1.8	6.3	5.5	4.7	6.0	7.3	5.5	6.4	4.1	6.1						
Apparel	113.1	117.2	116.4	118.2	118.4	120.8	120.3	122.0	122.3	124.2	4.8	4.7	3.6	111.0	116.2	120.4
% Change	0.2	15.4	-2.7	6.4	0.5	8.6	-1.7	5.6	1.0	6.4						
Gasoline & Oil	77.2	79.0	79.7	79.3	81.2	85.6	88.7	88.2	88.1	89.6	4.0	0.5	9.1	78.4	78.8	85.9
% Change	-15.7	9.4	3.6	-1.8	10.0	23.3	15.4	-2.4	-0.3	6.7						
Fuel Oil	77.3	78.6	78.9	79.7	83.1	87.0	88.9	88.2	88.3	89.5	0.9	2.7	10.4	76.6	78.6	86.8
% Change	-1.5	7.2	1.5	4.1	18.0	20.0	9.1	-3.1	0.5	5.8						
Other Nondurables	128.3	130.0	131.7	133.4	135.3	137.1	139.1	140.8	142.8	144.7	4.0	4.8	5.5	124.9	130.9	138.1
% Change	5.3	5.4	5.3	5.2	5.9	5.5	6.0	4.8	5.8	5.4						
Services	132.2	133.8	135.4	136.9	138.8	140.7	142.7	144.5	146.6	148.6	4.9	4.8	5.3	128.4	134.6	141.7
% Change	3.9	4.7	4.8	4.6	5.7	5.6	5.8	5.2	5.8	5.7						
Housing	134.8	135.8	137.3	139.0	140.8	142.6	144.5	146.4	148.4	150.5	4.7	4.7	5.0	130.5	136.7	143.6
% Change	4.9	3.1	4.4	5.1	5.3	5.1	5.5	5.4	5.5	5.8						
Electricity & Gas	112.0	112.7	113.4	113.0	113.8	115.0	115.8	115.4	116.2	117.3	-1.6	0.4	2.0	112.3	112.8	115.0
% Change	-0.3	2.4	2.5	-1.6	3.0	4.3	3.0	-1.5	3.0	3.8						
Household Operations	125.9	127.5	128.5	129.6	130.9	131.8	132.9	134.2	135.5	136.8	2.1	2.2	3.6	125.1	127.9	132.5
% Change	-0.2	5.1	3.3	3.6	4.0	2.9	3.2	4.0	3.8	4.0						
Transportation	121.4	122.8	124.7	126.8	129.1	131.2	133.4	135.6	137.5	139.3	5.9	4.4	6.8	118.7	123.9	132.4
% Change	-6.2	4.8	6.4	6.7	7.7	6.5	7.1	6.8	5.6	5.4						
Medical Care	139.0	142.2	144.6	146.4	149.0	151.5	154.2	156.1	159.1	161.6	5.5	6.5	6.8	134.3	143.0	152.7
% Change	7.1	9.4	7.0	5.0	7.3	7.0	7.2	5.0	7.8	6.5						
Other Services	133.2	134.2	135.5	137.0	138.7	140.6	142.5	144.6	146.5	148.5	6.4	4.9	4.9	128.7	135.0	141.6
% Change	5.0	3.0	4.1	4.5	5.1	5.6	5.5	6.0	5.4	5.6						
Personal Consump Exp	122.2	123.8	125.1	126.5	128.1	130.1	131.8	133.4	134.9	136.7	4.4	4.1	5.2	119.5	124.4	130.9
% Change	2.3	5.3	4.3	4.6	5.2	6.4	5.3	4.9	4.6	5.4						
Consumer Price Index	116.1	117.5	118.9	120.1	121.5	123.4	125.2	126.6	127.9	129.6	3.7	4.0	5.1	113.6	118.2	124.2
% Change	2.4	4.9	4.9	4.1	4.7	6.4	6.0	4.5	4.2	5.4						

Table 9.

Georgia State University
College of Business Administration
Economic Forecasting Center
August 1988

Implicit Price Deflators with Annual Percentage Changes for 1988-I and 1988-II with Forecasts for 1988-III through 1990-II

	1988				1989				1990		Percent Change			Annual		
	I	II	III	IV	I	II	III	IV	I	II	86-87	87-88	88-89	1987	1988	1989
GNP Deflator	119.4	120.6	121.8	122.9	124.3	125.8	127.1	128.5	130.1	131.8	3.3	3.0	4.3	117.7	121.2	126.4
% Change	1.7	4.1	4.0	3.7	4.6	4.9	4.2	4.5	5.1	5.3						
Personal Cons. Exp.	122.2	123.8	125.1	126.5	128.1	130.1	131.8	133.4	134.9	136.7	4.4	4.1	5.2	119.5	124.4	130.9
% Change	2.3	5.3	4.3	4.6	5.2	6.4	5.3	4.9	4.6	5.4						
Private Domestic Investment	104.7	104.3	104.8	105.3	106.0	106.6	107.3	108.1	108.9	109.4	2.1	-0.8	2.1	105.7	104.8	107.0
% Change	-3.0	-1.5	1.6	2.2	2.6	2.4	2.7	3.0	3.0	1.8						
Structures	113.0	114.0	115.0	116.1	117.3	118.6	119.8	121.0	122.3	123.5	3.6	3.1	4.1	111.1	114.5	119.2
% Change	4.4	3.6	3.6	3.9	4.2	4.5	4.1	4.1	4.4	4.0						
Producers' Durables	94.8	94.0	93.6	93.7	93.8	94.1	94.3	94.7	95.3	95.4	-1.0	-2.3	0.2	96.2	94.0	94.2
% Change	-1.3	-3.3	-1.7	0.4	0.4	1.3	0.9	1.7	2.6	0.4						
Residential Structures	119.5	119.6	120.1	121.1	122.0	122.8	123.9	125.2	126.4	127.8	4.6	3.3	2.8	116.3	120.1	123.5
% Change	2.7	0.3	1.7	3.4	3.0	2.6	3.6	4.3	3.9	4.5						
Exports	100.3	101.1	102.3	103.7	105.0	106.2	107.3	108.3	109.3	110.6	0.0	1.8	4.8	100.1	101.9	106.7
% Change	0.8	3.2	4.8	5.6	5.1	4.7	4.2	3.8	3.7	4.8						
Imports	100.8	101.0	101.7	102.8	104.7	106.5	108.0	108.9	109.6	110.9	5.7	2.7	5.4	99.0	101.6	107.0
%Change	3.2	0.8	2.8	4.4	7.6	7.1	5.8	3.4	2.6	4.8						
Federal	115.2	115.3	115.9	116.5	118.7	120.0	120.8	121.2	123.9	125.7	2.5	2.7	3.8	112.7	115.7	120.2
% Change	9.6	0.3	2.1	2.1	7.8	4.5	2.7	1.3	9.2	5.9						
Federal Purchases	108.4	108.0	109.0	109.9	111.0	112.4	113.8	114.6	116.0	117.7	1.5	1.5	3.8	107.2	108.8	113.0
% Change	6.5	-1.5	3.8	3.3	4.1	5.1	5.1	2.8	5.0	6.0						
Federal Value Added	126.5	127.3	127.4	127.7	132.2	133.5	133.5	133.6	138.5	140.3	4.3	4.0	4.7	122.3	127.2	133.2
% Change	11.2	2.6	0.3	0.9	14.9	4.0	0.0	0.3	15.5	5.3						
State & Local	126.5	128.1	129.7	131.0	132.7	134.2	135.8	137.4	139.1	141.0	4.1	4.7	4.8	123.0	128.8	135.0
% Change	5.2	5.2	5.1	4.1	5.3	4.6	4.9	4.8	5.0	5.6						
State & Local Purchases	115.7	117.3	118.5	119.7	121.0	122.1	123.5	124.9	126.3	127.9	3.0	3.9	4.3	113.4	117.8	122.9
% Change	3.2	5.6	4.2	4.1	4.4	3.7	4.7	4.6	4.6	5.2						
State & Local Value Added	135.1	136.9	138.8	140.2	142.1	143.9	145.7	147.5	149.5	151.5	4.9	5.5	5.1	130.6	137.8	144.8
% Change	6.5	5.4	5.7	4.1	5.5	5.2	5.1	5.0	5.5	5.5						

Table 10.

Georgia State University
College of Business Administration
Economic Forecasting Center
August 1988

Consumption Details for 1988-I and 1988-II with Forecasts for 1988-III through 1990-II

	1988				1989				1990		Percent Change			Annual		
	I	II	III	IV	I	II	III	IV	I	II	86-87	87-88	88-89	1987	1988	1989
CURRENT DOLLARS																
Durable Goods	437.8	446.9	453.6	457.2	460.6	462.7	461.7	459.7	464.1	470.7	3.8	6.4	2.7	421.9	448.9	461.2
Motor Vehicles & Parts	202.2	206.8	210.4	212.1	214.1	215.9	214.0	212.6	216.6	221.7	-0.3	6.2	3.0	195.8	207.9	214.2
Furniture	154.7	159.0	160.7	162.0	161.9	161.6	161.2	159.9	159.6	160.3	5.9	7.3	1.3	148.3	159.1	161.2
Other	81.0	81.2	82.5	83.1	84.6	85.2	86.5	87.2	87.9	88.7	10.9	5.4	4.8	77.8	82.0	85.9
Nondurable Goods	1016.2	1030.3	1043.2	1056.1	1071.1	1091.2	1109.9	1123.1	1137.5	1153.1	5.8	3.9	6.0	998.0	1036.5	1098.8
Food	535.9	542.4	549.4	556.7	563.7	573.2	581.8	590.3	597.0	606.1	5.1	3.7	5.7	526.4	546.1	577.3
Clothing & Shoes	180.5	182.5	183.1	185.0	187.5	189.6	191.8	192.5	195.3	196.6	6.7	2.6	4.1	178.2	182.8	190.4
Gas & Oil	76.3	78.5	79.6	79.8	81.4	85.6	88.9	88.9	89.0	90.1	5.1	2.0	9.7	77.0	78.6	86.2
Fuel Oil & Coal	17.0	17.3	17.6	17.7	18.2	18.7	19.2	19.4	19.6	19.7	-3.3	7.7	8.5	16.2	17.4	18.9
Other	206.6	209.6	213.5	216.9	220.3	224.1	228.2	232.0	236.6	240.6	7.8	5.8	6.9	200.1	211.7	226.2
Services	1674.1	1709.6	1745.3	1777.6	1815.8	1853.1	1891.5	1926.5	1966.0	2007.5	9.3	8.4	8.4	1592.3	1726.6	1871.7
Housing	490.1	496.4	504.4	513.3	522.7	531.9	541.8	551.8	562.1	573.1	7.7	7.1	7.2	467.7	501.1	537.1
Household Operations Gas & Electric	90.2	91.3	93.8	93.2	94.8	96.6	98.0	98.2	99.5	100.9	1.6	3.8	5.2	88.8	92.1	96.9
Household Operations Other	100.7	102.6	104.2	105.9	107.6	108.9	110.3	111.8	113.8	115.6	5.5	5.9	6.1	97.6	103.4	109.7
Transportation	111.3	114.7	117.5	120.3	123.2	125.8	128.5	130.9	133.1	135.7	13.2	6.9	9.6	108.4	116.0	127.1
Medical Care	384.9	397.2	407.9	417.2	428.8	439.9	451.5	461.1	474.5	486.5	12.6	11.5	10.8	360.4	401.8	445.3
Other	497.0	507.4	517.5	527.7	538.7	550.0	561.4	572.7	583.0	595.7	10.4	8.6	8.5	471.8	512.4	555.7
CONSTANT DOLLARS																
Durable Goods	401.1	408.1	411.1	411.3	411.8	410.7	406.6	402.2	404.6	407.5	1.5	4.3	-0.0	390.9	407.9	407.8
Motor Vehicles & Parts	173.5	177.3	178.8	178.5	178.9	178.3	175.2	172.4	175.0	177.8	-3.4	3.9	-0.5	170.4	177.0	176.2
Furniture	157.3	161.3	162.5	163.3	163.0	162.9	161.8	160.5	160.6	160.9	5.5	6.7	0.6	151.0	161.1	162.1
Other	70.3	69.5	69.8	69.5	69.9	69.5	69.6	69.3	69.0	68.8	6.3	0.3	-0.1	69.6	69.8	69.7
Nondurable Goods	892.7	888.2	891.2	892.3	892.8	890.9	895.0	894.7	898.5	897.2	1.3	0.1	0.3	890.5	891.1	893.4
Food	451.4	449.9	449.6	450.4	449.5	449.1	449.8	449.3	449.9	450.0	0.5	-0.0	-0.2	450.4	450.3	449.4
Clothing & Shoes	159.6	155.7	157.3	156.5	158.4	156.9	159.4	157.8	159.7	158.3	1.9	-2.0	0.5	160.5	157.3	158.1
Gas & Oil	98.8	99.4	99.9	100.6	100.2	100.0	100.2	100.8	101.0	100.6	1.0	1.4	0.6	98.3	99.7	100.3
Fuel Oil & Coal	22.0	22.0	22.3	22.2	21.9	21.5	21.6	22.0	22.2	22.0	-4.1	4.9	-1.7	21.1	22.1	21.8
Other	161.0	161.2	162.1	162.6	162.8	163.4	164.0	164.8	165.7	166.3	3.6	0.9	1.3	160.2	161.7	163.8
Services	1265.9	1278.0	1289.4	1298.6	1308.3	1317.1	1325.7	1333.3	1341.5	1351.0	4.1	3.5	3.0	1239.5	1283.0	1321.1
Housing	363.6	365.5	367.4	369.3	371.2	373.1	375.0	376.9	378.8	380.8	2.9	2.3	2.1	358.3	366.5	374.1
Household Operations Gas & Electric	80.5	81.0	82.7	82.5	83.3	84.0	84.6	85.1	85.6	86.0	3.2	3.3	3.2	79.1	81.7	84.3
Household Operations Other	80.0	80.5	81.1	81.7	82.2	82.6	83.0	83.3	84.0	84.5	3.3	3.7	2.4	78.0	80.8	82.8
Transportation	91.7	93.4	94.2	94.9	95.4	95.9	96.3	96.5	96.8	97.4	4.6	4.7	2.6	89.4	93.6	96.0
Medical Care	276.9	279.4	282.1	285.0	287.8	290.3	292.8	295.4	298.3	301.1	6.7	4.7	3.8	268.2	280.9	291.6
Other	373.2	378.2	381.9	385.2	388.4	391.2	394.0	396.1	398.0	401.2	3.7	3.6	3.4	366.6	379.6	392.4

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